



#IVTEAM #Intravenous literature: Foinard, A., Décaudin, B., Barthélémy, C., Lebuffe, G., Debaene, B. and Odou, P. (2014) Impact of infusion set characteristics on the accuracy of patient-controlled morphine administration: a controlled in-vitro study. *Anaesthesia*. January 4th. .

Summary:

The aim of our in-vitro study was to assess the impact of infusion set characteristics on the accuracy of morphine doses in patient-controlled analgesia. Two infusion sets differing in conception and dead-space volume were assessed: a standard set and a low dead-space volume Y-set. The patient-controlled analgesia programme parameters were as follows: bolus equal to 1 ml at 100 ml.h⁻¹; lockout intervals equal to 5 and 10 min; and carrier fluid flow rate equal to 10 and 50 ml.h⁻¹. Morphine concentration was determined by an ultraviolet spectrophotometric method. The morphine doses were significantly different from one set to the other during bolus and lockout intervals, whatever the patient-controlled analgesia programme. The average doses were approximately 1.3-6.0 times higher with the low dead-space volume Y-set during bolus. Our study underlines the impact of infusion set characteristics on the accuracy of morphine patient-controlled analgesia doses.

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