Manipal Journal of Pharmaceutical Sciences

Volume 6 | Issue 2 Article 9

9-1-2020

Compatibility Assessment of Intravenous Admixtures in a Tertiary Care Teaching Hospital

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Research Article

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Abstract

Intravenous admixture is the preparation which contains one or more sterile drug products added to intravenous fluids, which are intended for continuous infusion. The objective of the study is to assess the compatibility of intravenous admixtures. A prospective observational study was conducted in 245 patients of both the sexes who are administered with intravenous admixtures admitted in the various wards of Navodaya Medical College Hospital and Research Center, Raichur, Karnataka, over six months from September 2018 to March 2019. The results of the study show that three types of IV fluids, i.e., normal saline (81.84%), Ringer's lactate (12.74%), and dextrose normal saline (5.42%) were commonly used. Out of 369 drug-IV combinations, 290 (78.59%) were compatible, 74 (20.05%) are not documented, and 5 (1.36%) are incompatible. Whereas out of 245 cases, 61 drug-drug combinations were found. In that, 44 (44.89%) drug-drug combinations were found to be compatible, and the rest 17 (18.37%) were compatible. The study concludes that only a minor fraction (1.36%) of incompatibility was found. But a significant number of non-documented drug combinations still exist, which highlights the need for additional studies on this subject to provide increased safety regarding IV drug administration. Moreover, to reduce the IV incompatibilities, an IV incompatibility chart for the frequently used drugs were prepared and placed in each ward.

Key words: Clinical pharmacist, Compatibilities, Drug interaction, Incompatibilities, Infusion, Intravenous admixtures, Intravenous fluid

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Date of Submission: 24 Jul 2020, Date of Revision: 16 Aug 2020
Date of Acceptance: 17 Aug 2020

How to cite this article: Hiremath D, John N N, Patil S S, Anil A, Athul K: Compatibility Assessment of Intravenous Admixtures in a Tertiary Care Teaching Hospital. *MJPS* 2020; 6(2): 87-90.