

阿奇霉素粉-液双室袋与传统粉针配制的比较研究

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摘要: **目的** 通过实验系统评价新型阿奇霉素粉-液双室袋的便利性, 安全性和准确性。**方法** 采用计算配制时间来评价双室袋的便利性; 通过对配制过程中出现的刺伤、划伤等伤害人次, 和配制后不溶性微粒数来评价双室袋的安全性; 通过高效液相色谱法检测配制浓度和残留量来评价双室袋配制的准确性。**结果** 双室袋配制时间明显少于粉针配制时间 $[(22.5\pm 4.7)\text{s}$ vs $(89.2\pm 15.5)\text{s}$, $P<0.05$]; 配制过程中不会造成人员伤害, 配制后的不溶性微粒数明显少于粉针配制($P<0.05$); 由于双室袋配制过程中不产生药物残留, 故其药物浓度更接近理论值。**结论** 新型阿奇霉素粉-液双室袋在便利性、安全性和准确性上都明显优于粉针配制, 具有显著的临床应用优势。

关键词: 阿奇霉素; 粉-液双室袋; 传统粉针

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A comparative study of azithromycin powder-liquid double chamber bag dosage form and the ordinary one

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Abstract Objective To systematically evaluate the convenience, safety and accuracy of a new powder- liquid double chamber bag packing of azithromycin. **Methods** The convenience of the dual-chamber bag was evaluated by calculating the preparation time. The safety of the dual-chamber bag was determined by the occurrence of stabbing and cutting injures during the preparation, as well as the number of insoluble particles after the preparation. The accuracy of the dual-chamber bag was estimated by the actual concentration and drug residue amounts measured by high performance liquid chromatography (HPLC). **Results** The preparation time of the dual-chamber bag was significantly less than that of the traditional powder $[(22.5\pm 4.7)\text{s}$ vs $(89.2\pm 15.5)\text{s}$, $P<0.05$]. Personal injury was not found during the preparation process using the dual-chamber bag, and significantly less insoluble particles was detected after the process. And the drug concentration of azithromycin is closer to the theoretical value because of no drug residuals. **Conclusion** The new dual-chamber bag packing of azithromycin is superior to the traditional powder in convenience, safety, and accuracy, which suggests an outstanding advantage in clinical application.

Key words Azithromycin; Powder- liquid double chamber bag; Traditional powder

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