

Drug Compatibility Charts

Question:

Can you recommend a resource for obtaining a drug compatibility chart? I would like to display a wall chart in critical care units and medical-surgical units that will provide an easy reference to the compatibility of common drugs used for chemotherapy.

Answer:

Many companies compile drug compatibility data into convenient wall charts. While this would seem to be an easy way to provide access to this information, I frequently have seen these charts used inappropriately and would not recommend reliance on them.

Research on drug compatibility constantly is being published, therefore a chart quickly can become outdated, and yet I have seen these charts remain posted for years, creating the potential for incorrect decisions about medication administration.

Drug compatibility is dependent upon many factors, such as the order of admixing, drug and solution quantity, buffering systems, preservatives, temperature, and light. These variables can lead to a large amount of conflicting information.

A well-known reference for drug compatibility information is the American Society of Health-System Pharmacists' Handbook on Injectable Drugs, edited by Lawrence Trissel. This reference cites drugs as incompatible when the published article reveals visible sign of incompatibility (e.g., haze, color change, or precipitate) or when there is greater than 10% decomposition of one or more drugs in the admixture in 24 hours or less. This reference also provides information on compatibility of drugs with a variety of diluents, when two drugs are admixed in the same fluid container, when drugs are mixed together in the same syringe, and when one drug is injected at a Y-site of administration tubing containing another drug. It would be most difficult to put this level of detail in a simple chart that can be placed conveniently on a wall.

Rather than using a wall chart, I would recommend consulting IV medication handbooks. Mosby, Inc. publishes Intravenous Medications yearly, and Springhouse Corporation publishes Nursing I.V. Drug Handbook periodically. Both contain drug monographs with a list of other drugs that are incompatible. These handbooks are the starting point. If the required information cannot be found in these books, the question must be referred to a knowledgeable pharmacist.

Large drug databases contain information on drug incompatibility. This may be on a facility's intranet or accessed by subscription via the Internet. These databases are updated frequently in order to provide the latest information. Access to the data sometimes is limited to the pharmacy, but you could request that it be made available to all professionals in your facility.

Many times the available information requires some level of professional judgment from a pharmacist in interpreting drug compatibility data. When a nurse collaborates with a pharmacist, don't just ask if drug X is compatible with drug Y. Rather, describe the complete process of how the drugs will be given ? admixed in a fluid container for infusion over several hours or piggybacked into administration tubing with contact

between the drugs needed for a few minutes. This level of detail will be required for the pharmacist to make a good judgment.

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