

intravenous medications, including hospital pharmacists, retail pharmacists, and privately owned compounding pharmacies.

When drugs are modified for individual patients, the process is known as traditional compounding. In its simplest form, traditional compounding may involve reformulating a drug, for example, by removing an inert ingredient or preservative due to a patient allergy. It may also involve making an alternative dosage form in a liquid suppository for a child or elderly patient who has difficulty swallowing a tablet.²

According to industry experts, a shortage of specific drugs and rising costs have combined to increase the reliance of hospitals on large-scale compounding pharmacies to meet their regular and repeatable needs for intravenous and sterile-injectable medication. The bulk production of regular and repeatable compounded drugs is known as compounding for office use (non-patient specific). This shift to large-scale compounding pharmacies not only increases economies of scale, but also increases patient exposure to risk if proper safety controls are not followed.

A LOOK AT COMPOUNDED DRUGS/MEDICATIONS

Example of Nonsterile, Traditional Compounding

A quick check of traditional pharmacies (Walmart, CVS, Walgreens, Target, etc.) confirms that sterile compounding is virtually outsourced to compound manufacturers and compounding pharmacies. A few of the local pharmacies (i.e., 24/7 pharmacies) do some nonsterile medication compounding with creams, capsules, and troches. Examples of these nonsterile compounded drugs are hormone replacement drugs and diaper rash creams. Since I have an 18-month-old grandson, let's take a look at an example of diaper rash creams.

Sometimes diaper rash can be really problematic, so much so that common over-the-counter products (such as A&D Ointment) don't remedy the problem. Some pharmacists use the prescription drug cholestyramine (commonly called Questran) to take the treatment of diaper rash to a higher level. Questran is primarily used to lower cholesterol levels, prevent coronary heart disease, and applicable to diaper rash, treat severe itching caused by liver disease. Its drug class is bile acid sequestrant,