Pharmacological Basis of Acute Care
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Chapter 8
Pharmaceutical Aspects of Drugs

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Abstract Drugs can be obtained from many sources such as plants, animals, minerals or microorganisms. However, most drugs are synthetically produced in the laboratory, as they can be produced on a larger scale, in a more cost effective manner and be of higher quality. It is important to know the sources of drugs as patients can develop hypersensitivity reactions to certain drug source. Some patients (based on their religious beliefs) also prefer not to use drugs obtained from bovine or porcine sources. Drug development and trials in animals and humans is a long and costly process. This process is essential to determine that the new drug is safe for human consumption. Drugs should be packaged in a manner that protects the active ingredient from deterioration due to external factors. Drugs should also be labeled with sufficient information to enable the determination of the exact content of the active ingredient, its storage conditions and manufacturing details.

Keywords Drug sources • Drug development • Clinical trial • Packaging • Labelling

Introduction

Drugs can be obtained from many sources, such as plants, animals, and minerals. Today, most drugs are synthetically manufactured in laboratories, or produced by microorganisms. Most drugs have undergone several years in the developmental stages where intensive research, drug trials and safety testing on them had been done on the generic form. After they have been cleared for human consumption through all these testing and post testing surveillance, the company that has invested in the research would commission for its production and registration with national and international drug registries. Drugs as it is available to the patients are also packaged in such a way that the original drug is protected from the many agents that can contribute to its deterioration.