

■ THE ROLES OF THE LICENSED PRACTICAL NURSE, LICENSED VOCATIONAL NURSE, AND MEDICAL ASSISTANT IN THE ADMINISTRATION OF MEDICATIONS

All health-care providers must work within their scope of practice, which is a standardized set of health-care services providers can render and the extent they may do so independently. These functions are based on state laws and the provider's education, experience, and skills. Facilities may have their own additional policies. It is important to know your scope of practice in your state so that you can provide the best care possible to your patients while abiding by state regulations.

The individual State Boards of Nursing are the governing bodies that determine the scopes of practices for Licensed Practical Nurses (LPNs) and Licensed Vocational Nurses (LVNs). LPNs/LVNs generally administer oral, rectal, ophthalmic, otic, intradermal, subcutaneous, intradermal, and intravenous (IV) medications. In most states, LPNs may not give medications by rapid IV push. Many states additionally regulate if an LPN/LVN can start, discontinue, and/or monitor IV fluids. They also may not be allowed to administer or monitor IV medications and fluids via a central line (one that is in a large vein close to the patient's heart). LPNs/LVNs usually work under the direct supervision of a registered nurse.

Medical assistants may usually administer oral, intradermal, subcutaneous, and intramuscular medications as well as rectal, otic, and ophthalmic medications. In some states, they are allowed to have some involvement with IV fluids and medications after additional training once they receive their initial certification. Medical assistants generally work under direct supervision of a physician, physician assistant, or nurse practitioner.

● ● ● S U M M A R Y

- Ancient cultures have contributed to the knowledge base and evolution of pharmacology, including Greek, Chinese, Egyptian, Persian (Iranian), and Arabic. Examples of early documentation include the Egyptian Ebers papyrus (1550 B.C.) and the Persian Al-Hawi.
- The 19th and 20th centuries saw rapid advancement in organic chemistry and technology that enabled scientists to identify and isolate active ingredients in plants and allowed the creation of synthetic drugs.
- Advancements in the study of human physiology enabled a better understanding of pharmacodynamics, the study of the negative and positive biochemical or physiological changes that a drug creates in the body.
- Mass-production of medications began around 1939 to 1945, and genetic engineering produced large amounts of drugs from small amounts of natural resources.
- In the 21st century, the field of pharmacogenetics is developing as physicians use genetic testing to determine how a patient will respond to specific medications and thus individualize treatment for the patient and his or her disease.
- Sources of drugs include plants, animals, minerals, toxins, and synthetic creations.
- The six categories of a drug's effect on the body are curative, prophylactic, diagnostic, palliative, replacement, and destructive.
- Roles of the LPN/LVN and medical assistant in medication administration are governed by their scope of practice, which is established by state regulations and facility policies.