10.2B: Disease Severity and Duration

The severity and duration of diseases vary greatly and are important for epidemiological studies.

Learning Objectives

- Discuss the severity and various types of disease duration, including: acute, chronic, flare-up, refractory, progressive, remission and a cure

Key Points

- Severity of illness is defined as the extent of organ system derangement or physiologic decompensation of a patient, and in general an illness is classified into minor, moderate, major, and extreme.
- In an infectious disease, the incubation period is the time between infection and the appearance of symptoms, the latency period is the time between infection and the ability to spread to another person, and the viral latency is the time the virus hides in the body in an inactive state.
- Disease duration can encompass one or more of the following: an acute disease, a chronic disease, a flare-up, a refractory disease is a disease, a progressive disease, or a cure.
- The scope of a disease, whether it is localized, disseminated, or systemic also affects its severity and duration.
- The International Classification of Diseases (ICD) is known as a health care classification system that provides codes to classify diseases and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or disease.
Key Terms

- **severity**: the degree of something undesirable; badness or seriousness.
- **duration**: an amount of time or a particular time interval

Severity of illness is defined as the extent of organ system derangement or physiologic decompensation of a patient. It gives a medical classification into minor, moderate, major, and extreme that is meant to provide a basis for evaluating hospital resource use or to establish patient care guidelines.

In an infectious disease, the incubation period is the time between infection and the appearance of symptoms. The latency period is the time between infection and the ability of the disease to spread to another person, which may precede, follow, or be simultaneous with the appearance of symptoms. Some viruses also exhibit a dormant phase, called viral latency, in which the virus hides in the body in an inactive state.

Disease duration can be one of the following:

1. An acute disease is a short-lived disease, like the common cold.
2. A chronic disease is one that lasts for a long time, usually at least six months. During that time, it may be constantly present, or it may go into remission and periodically relapse. A chronic disease may be stable (does not get any worse) or it may be progressive (gets worse over time). Some chronic diseases can be permanently cured. Most chronic diseases can be beneficially treated, even if they cannot be permanently cured.
3. A flare-up can refer to either the recurrence of symptoms or an onset of more severe symptoms.
4. A refractory disease is a disease that resists treatment, especially an individual case that resists treatment more than is normal for the specific disease in question.
5. A progressive disease is a disease whose typical natural course is the worsening of the disease until death, serious debility, or organ failure occurs. Slowly progressive diseases are also chronic diseases; many are also degenerative diseases. The opposite of progressive disease is stable disease or static disease: a medical condition that exists, but does not get better or worse.
6. A cure is the end of a medical condition or a treatment that is very likely to end it, while remission refers to the disappearance, possibly temporarily, of symptoms. Complete remission is the best possible outcome for incurable diseases.

The scope of a disease also affects its severity and duration:

1. A localized disease is one that affects only one part of the body, such as athlete's foot or an eye infection.
2. A disseminated disease has spread to other parts; with cancer, this is usually called metastatic disease.
3. A systemic disease is a disease that affects the entire body, such as influenza or high blood pressure.

The International Classification of Diseases (most commonly known by the abbreviation ICD) is according to its publisher, the United Nations-sponsored World Health Organization, and is considered “the standard diagnostic tool for epidemiology, health management and clinical purposes.” It is known as a health care classification system that provides codes to classify diseases and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances, and external causes of injury or disease. Under this system, every health condition can be assigned to a unique category and given a code, up to six characters long. Such categories can include a set of similar diseases. The International Classification of Diseases is published by the World Health Organization (WHO) and is used worldwide for...
morbidity and mortality statistics, reimbursement systems, and automated decision support in health care. This system is designed to promote international comparability in the collection, processing, classification, and presentation of these statistics. The ICD is a core classification of the WHO Family of International Classifications (WHO-FIC).