Module 2
Section C: Surveillance Methodologies

Term
Syndromic surveillance

Module 2
Section C: Surveillance Methodologies

Term
Targeted surveillance

Module 2
Section C: Surveillance Methodologies

Term
Total surveillance

Module 2
Section F: Descriptive Statistics

Term
Attack rate

Module 2
Section F: Descriptive Statistics

Term
Bias

Module 2
Section F: Descriptive Statistics

Term
Confounder

Module 2
Section F: Descriptive Statistics

Term
Correlation

Module 2
Section F: Descriptive Statistics

Term
Incidence proportion

Focuses on a narrow selection of infections and pathogens; also known as "priority-directed" surveillance.

The collection and analysis of pre-diagnostic and nonclinical disease indicators using preexisting electronic data.

The proportion of persons at risk who become infected over an entire period of exposure or a measure of the risk or probability of becoming a case.

Measures and tracks all infections at a facility, across its entire population of residents and staff; also known as "comprehensive" or "whole house" surveillance.

A variable that is an independent cause or predictor of the exposure and the outcome and is not on the path between the exposure and the outcome; also called a confounding variable.

A systematic error in study design, subject recruitment, data collection, or analysis that results in a mistaken estimate of the true population parameter. (NIH)

A measure of the number of new cases or events within the population at risk during the identified time period.

Calculation of the direction and magnitude of a relationship between two variables.

Module 2
Section F: Descriptive Statistics

Term
Incidence rate

Module 2
Section F: Descriptive Statistics

Term
Interval scale

Module 2
Section F: Descriptive Statistics

Term
Mortality rate

Module 2
Section F: Descriptive Statistics

Term
Nominal scale

Module 2
Section F: Descriptive Statistics

Term
Ordinal scale

Module 2
Section F: Descriptive Statistics

Term
Period prevalence

Module 2
Section F: Descriptive Statistics

Term
Point prevalence

Module 2
Section F: Descriptive Statistics

Term
Proportion

A measurement in descriptive statistics in which the exact distance between any two ordinal scale observations is known and assumed to be equal but attributes measured have no real, rational zero point.

Represents the proportion of new cases over a particular period of time.

The crudest level of measurement in descriptive statistics. Creates categorical data in which no order is implied by the classifications. Values cannot be measured mathematically (e.g., cannot be averaged), but frequency or percentage can be applied.

A measure of the frequency of death in a defined population during a specified time (usually a year).

Prevalence during a span of time (e.g., over the course of a given month).

A measurement in descriptive statistics that applies ranking to categorical data on a relative scale so that each category is distinct and stands in some definite relationship to each of the other categories but does not indicate how much greater each level is than another.

A specific kind of ratio that compares a part to the whole.

Prevalence at a specific point in time (e.g., on a given day).

Module 2
Section F: Descriptive Statistics

Term
Rate

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Module 2
Section F: Descriptive Statistics

Term
Ratio

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Module 2
Section F: Descriptive Statistics

Term
Ratio scale

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Module 2
Section F: Descriptive Statistics

Term
Regression

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Module 2
Section F: Descriptive Statistics

Term
Standardization

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Module 2
Section F: Descriptive Statistics

Term
Stratification

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Module 2
Section G: Inferential Statistics

Term
2 by 2 table

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Module 2
Section G: Inferential Statistics

Term
Deviation

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The comparison of any two quantitative values.	A specific kind of ratio that includes a unit of time, and provides information about how fast events are occurring.
A way to explain the relationship between a dependent variable (y) and one or more explanatory (or independent) variables (x).	The highest level of measurement in descriptive statistics; creates interval scale observations that have an absolute, real zero point, which allows for higher levels of statistical analysis.
The process by which the population in a dataset is separated into distinct categories.	Used when one needs to compare the event rates of different groups, for example, if an IP wants to compare catheter-associated urinary tract infection rates for two facilities.
The difference between an individual value in a data set and the mean value.	A table with two outcome columns (e.g., disease and no disease) and two exposure rows (e.g., exposed and not exposed).

Module 2
Section G: Inferential Statistics

Term
Dispersion

Module 2
Section G: Inferential Statistics

Term
Level of significance

Module 2
Section G: Inferential Statistics

Term
Mean

Module 2
Section G: Inferential Statistics

Term
Measures of central tendency

Module 2
Section G: Inferential Statistics

Term
Median

Module 2
Section G: Inferential Statistics

Term
Mode

Module 2
Section G: Inferential Statistics

Term
Negative predictive value (NPV)

Module 2
Section G: Inferential Statistics

Term
Population

The probability value arbitrarily chosen by the researcher as the desired level of probability at which one may feel secure in rejecting the null hypothesis; typically set at 0.05 or 0.01.

The distribution of data around the mean.

Describe how observations cluster around a middle value and locate only the center of a distribution measure; include mean, median, and mode.

The sum of all values divided by the total number of values.

The observation that occurs most frequently in a data set.

The midpoint of a set of observations

The set of all observations of interest to the investigator (the universe).

A measure of the proportion of persons without a disease who test negative.

Module 2
Section G: Inferential Statistics

Term
Positive predictive value (PPV)

Module 2
Section G: Inferential Statistics

Term
Power

Module 2
Section G: Inferential Statistics

Term
Range

Module 2
Section G: Inferential Statistics

Term
Reliability

Module 2
Section G: Inferential Statistics

Term
Sample

Module 2
Section G: Inferential Statistics

Term
Sensitivity

Module 2
Section G: Inferential Statistics

Term
Specificity

Module 2
Section G: Inferential Statistics

Term
Standard deviation

The ability of a test to detect a specified difference.

A measure of the proportion of persons with a positive test who have a disease.

The ability of the indicator to accurately and consistently identify the events it was designed to identify across multiple healthcare settings. (The Joint Commission)

The difference between the smallest and largest values in a data set.

A measure of the probability that a test correctly identifies as positive persons who have a disease.

A group of observations selected from a population and chosen to represent the population as a whole.

A measure that reflects the distribution of values around the mean; it is the average of all deviations in a data set and indicates how spread out the data are around the mean.

A measure of the probability that a test correctly identifies persons without a disease as negative.

Module 2
Section G: Inferential Statistics

Term
Type I error

Module 2
Section G: Inferential Statistics

Term
Type II error

Module 2
Section G: Inferential Statistics

Term
Variance

Module 2
Section G: Inferential Statistics

Term
p value

Module 2
Section A: Epidemiology

Term
Agent

Module 2
Section A: Epidemiology

Term
Airborne spread

Module 2
Section A: Epidemiology

Term
Carrier

Module 2
Section A: Epidemiology

Term
Causative agent

Occurs when the null hypothesis is accepted when it is actually false or when significance is not attributed when it actually exists.

Occurs when the null hypothesis is rejected when it is actually true or when significance is attributed when there actually is none.

The probability of observing a sample in which the test statistic is greater than or equal to the test statistic for the sample that was actually observed.

The deviation around the mean of a distribution.

An efficient mode of transmission that may involve varying distances between the source and the host.

A component of the epidemiological triangle; may be a bacteria, virus, fungus, protozoan, helminth, or prion.

A biological, physical, or chemical entity capable of causing disease.

A person who shows no recognizable signs or symptoms of a disease but is capable of spreading the disease to others.

Module 2
Section A: Epidemiology

Term
Chronic carriers

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Module 2
Section A: Epidemiology

Term
Cluster

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Module 2
Section A: Epidemiology

Term
Community-acquired infection

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Module 2
Section A: Epidemiology

Term
Convalescent carriers

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Module 2
Section A: Epidemiology

Term
Direct contact

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Module 2
Section A: Epidemiology

Term
Droplet transmission

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Module 2
Section A: Epidemiology

Term
Endemic

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Module 2
Section A: Epidemiology

Term
Environment

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A group of persons with a given disease occurring in the same space and time but not epidemiologically linked. If an epidemiological link is made, may become an outbreak.

Persons who may continue to have organisms present for very long periods of time.

Those who have recovered from a disease but still have organisms present that can be transmitted.

An infection that is present on admission to a healthcare facility and has no association with a recent hospitalization.

A mode of transmission that occurs when the infectious agent spends only a brief period passing through the air and can be inhaled at that time.

A mode of transmission that features person-to-person spread with actual physical contact occurring between a source and a susceptible host.

A component of the epidemiological triangle; consists of all external factors associated with the host.

The usual incidence of a given disease within a geographical area during a specified time period.

Module 2
Section A: Epidemiology

Term
Epidemic

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Module 2
Section A: Epidemiology

Term
Epidemiology

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Module 2
Section A: Epidemiology

Term
External vector-borne transmission

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Module 2
Section A: Epidemiology

Term
Fomite

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Module 2
Section A: Epidemiology

Term
Healthcare-associated infection (HAI)

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Module 2
Section A: Epidemiology

Term
Herd immunity

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Module 2
Section A: Epidemiology

Term
Host

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Module 2
Section A: Epidemiology

Term
Incidence

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The study of the distribution and determinants of disease and other conditions in human populations.

An excess over the expected incidence of disease within a given geographical area during a specified time period.

An inanimate object on which organisms may exist for some period of time, for example, a contaminated piece of medical equipment.

The mechanical transfer of microorganisms by a vector, such as a fly on food.

The resistance of a group to invasion and spread of an infectious agent, based on the immunity of a high proportion of individual members of the group.

An infection that is not present at the time of admission to a healthcare facility but is temporally associated with admission to or a procedure performed in the facility; may also be related to a recent hospitalization.

The number of new cases of a given disease in a given time period.

A component of the epidemiological triangle; refers to a human or other animal.

Module 2
Section A: Epidemiology

Term
Indirect contact

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Module 2
Section A: Epidemiology

Term
Infection—apparent, clinical, or symptomatic

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Module 2
Section A: Epidemiology

Term
Infection—unapparent, asymptomatic, or subclinical

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Module 2
Section A: Epidemiology

Term
Intermittent carriers

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Module 2
Section A: Epidemiology

Term
Internal vector-borne transmission

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Module 2
Section A: Epidemiology

Term
Mode of transmission

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Module 2
Section A: Epidemiology

Term
Outbreak

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Module 2
Section A: Epidemiology

Term
Pandemic

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An infection that results in clinical signs and symptoms of a recognizable disease process.

A mode of transmission that occurs when a patient comes in contact with a contaminated intermediate object or fomite.

Persons who periodically shed organisms.

An infection that runs a course similar to that of clinical disease but below the threshold of discernible clinical symptoms.

The method by which an organism reaches a susceptible host.

Involves the transfer of infectious material directly from the vector into the new host, such as occurs with mosquitoes and malaria.

An epidemic spread over a wide geographical area, across countries or continents.

Synonymous with epidemic but often preferred when dealing with the public; in local settings, a group of people with the same disease who are epidemiologically linked.

Module 2
Section A: Epidemiology

Term
Portal of entry

Module 2
Section A: Epidemiology

Term
Portal of exit

Module 2
Section A: Epidemiology

Term
Prevalence

Module 2
Section A: Epidemiology

Term
Reservoir

Module 2
Section A: Epidemiology

Term
Risk

Module 2
Section A: Epidemiology

Term
Risk factor

Module 2
Section A: Epidemiology

Term
Sustained carriers

Module 2
Section A: Epidemiology

Term
Vector

In the chain of infection, the path by which an infectious agent leaves the reservoir.

In the chain of infection, the means by which an infectious agent enters a susceptible host.

A place in which an infectious agent can survive but may or may not multiply, for example, Pseudomonas in nebulizers and hepatitis B on the surface of a hemodialysis machine.

The number of existent cases of a given disease at a given time.

A characteristic, behavior, or experience that increases the probability of developing a negative health status (e.g., disease, infection).

The probability or likelihood of an event occurring.

In biology, a biting insect, tick, or other organism responsible for transmitting a disease, pathogen, or parasite between persons, animals, or plants.

Persons who may continue to have organisms present for very long periods of time.

Module 2
Section A: Epidemiology

Term
Zoonosis

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Module 2
Section B: Surveillance Design

Term
Action plans

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Module 2
Section B: Surveillance Design

Term
Active surveillance

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Module 2
Section B: Surveillance Design

Term
Outcome measure

APIC a-IPC Learning System © 2025

Module 2
Section B: Surveillance Design

Term
Passive surveillance

APIC a-IPC Learning System © 2025

Module 2
Section B: Surveillance Design

Term
Process measure

APIC a-IPC Learning System © 2025

Module 2
Section B: Surveillance Design

Term
Surveillance

APIC a-IPC Learning System © 2025

Module 2
Section B: Surveillance Design

Term
Surveillance plan

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Detail the steps necessary for reaching the goals and addressing the issues identified during surveillance.	A disease transmitted from animals to humans (e.g., cat scratch fever, psittacosis).
A measure that indicates the result of the performance (or nonperformance) of functions or processes.	Surveillance that involves trained individuals (such as IPs) actively looking for healthcare-associated infections using standardized definitions and protocols.
A measure that focuses on a process or the steps in a process that lead to a specific outcome.	Surveillance that relies on others (e.g., physicians, nurses, or the microbiology laboratory) who are not trained on surveillance methods or primarily responsible for surveillance activities to report healthcare-associated infections.
The set of protocols and guidelines that will direct surveillance activities	A system for routine, ongoing, and systematic collection, analysis, interpretation, and dissemination of surveillance data to identify infections (i.e., HAI and community-acquired), infection risks, communicable disease outbreaks, and to maintain or improve resident health status.

Module 2
Section D: Data Collection and Management

Term
Concurrent data collection

Module 2
Section D: Data Collection and Management

Term
Demographic data

Module 2
Section D: Data Collection and Management

Term
Event data

Module 2
Section D: Data Collection and Management

Term
Process data

Module 2
Section D: Data Collection and Management

Term
Retrospective data collection

Module 2
Section D: Data Collection and Management

Term
Surveillance criteria

Module 2
Section D: Data Collection and Management

Term
Time data

Module 2
Section D: Data Collection and Management

Term
Validity

Data that is socio-economic in nature (e.g., age, sex, race).
Collecting and referencing of data in real time, with a focus on new information as it comes in.
Data related to facility protocols and practices (e.g., standard precautions, environmental cleaning).
Data related to high-volume, high-risk events within a faciility (e.g., HAIs, immunization rates).
Specific conditions that qualify as infections for the purpose of surveillance data collection; they are also used in the calculation and reporting of infection rates.
Collating of data that has already been collected, with a focus on examining what has already happened.
The extent to which a measure accurately reflects the concept or construct that it is intended to measure. (The Joint Commission)
Data bound by a unit of time (e.g., month, year).

Module 2
Section E: Statistics

Term
Association

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Module 2
Section E: Statistics

Term
Categorical data

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Module 2
Section E: Statistics

Term
Continuous data

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Deviation

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Discrete data

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Dispersion

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Mean

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Measures of central tendency

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Data split into mutually exclusive groups.

The relationship between a risk factor and an outcome, such as a disease.

The difference between an individual value in a data set and the mean value.

Data that can be measured on a continuum or scale.

The distribution of data around the mean.

Data representing whole numbers.

Describe how observations cluster around a middle value and locate only the center of a distribution measure; include mean, median, and mode.

The sum of all values divided by the total number of values.

Module 2
Section E: Statistics

Term
Median

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Module 2
Section E: Statistics

Term
Mode

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Odds ratio (OR)

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Module 2
Section E: Statistics

Term
Qualitative data

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Module 2
Section E: Statistics

Term
Quantitative data

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Range

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Relative risk (RR)

APIC a-IPC Learning System © 2025

Module 2
Section E: Statistics

Term
Standard deviation

APIC a-IPC Learning System © 2025

The observation that occurs most frequently in a data set.

The midpoint of a set of observations

Data representing qualities or characteristics.

The probability of having a particular risk factor if a condition or disease is present divided by the probability of having the risk factor if the disease or condition is not present.

The difference between the smallest and largest values in a data set.

Data representing counts or values on a numeric scale.

A measure that reflects the distribution of values around the mean; it is the average of all deviations in a data set and indicates how spread out the data are around the mean.

The probability of developing a disease if the risk factor is present divided by the probability of developing the disease if the risk factor is not present.

Module 2
Section E: Statistics

Term
Variance

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Module 2
Section H: Presenting Surveillance Activity Results

Term
Area map

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Module 2
Section H: Presenting Surveillance Activity Results

Term
Bar graph

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Module 2
Section H: Presenting Surveillance Activity Results

Term
Chart

APIC a-IPC Learning System © 2025

Module 2
Section H: Presenting Surveillance Activity Results

Term
Histogram

APIC a-IPC Learning System © 2025

Module 2
Section H: Presenting Surveillance Activity Results

Term
Line chart

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Module 2
Section H: Presenting Surveillance Activity Results

Term
Pie chart

APIC a-IPC Learning System © 2025

Module 2
Section H: Presenting Surveillance Activity Results

Term
Spot map

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Map that uses different shades of chosen colors to indicate different rates of infection (or other disease/health condition), with the darker shades indicating higher rates or an increasing disease burden.

The deviation around the mean of a distribution.

A form of visual data presentation used when the magnitudes of different events is important or when one wants to compare parts of the bigger picture.

Presents data as side-by-side bars for an easy comparison of magnitudes, frequency distributions, and time-series data.

Chart used to display the same data over time, for example, the rate of ICU CLABSIs over a year; each time point is equidistant from the previous and next time points, with time running along the x axis.

A graphic of frequency distribution that looks much like a bar graph but in which each bar represents a different time interval.

A tool for illustrating the geographic distribution of cases; uses dots or other symbols to show where each case-patient lives or was exposed.

Shows the proportion that a group represents within the whole population.

Module 2
Section H: Presenting Surveillance Activity Results

Term
Statistical process control (SPC)

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Module 2
Section H: Presenting Surveillance Activity Results

Term
Table

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Module 2
Section I: Emergency Preparedness

Term
All-hazards approach

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Module 2
Section I: Emergency Preparedness

Term
Bioterrorism attack

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Module 2
Section I: Emergency Preparedness

Term
Incident Command System (ICS)

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Module 2
Section J: Outbreak Investigations

Term
Case definition

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Module 2
Section J: Outbreak Investigations

Term
Control measures

APIC a-IPC Learning System © 2025

Module 2
Section J: Outbreak Investigations

Term
Epidemic curve

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A data set presented in rows and columns.

A set of methods for improving systems, processes, and outcomes; the primary goal is to recognize and understand common and special cause variations that affect a process.

The deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants. (CDC)

An integrated approach to emergency preparedness planning that focuses on capacities and capabilities that are critical to preparedness for a full spectrum of emergencies or disasters; the approach is specific to the location of the provider or supplier and considers the particular types of hazards most likely to occur in their areas. (Federal Register)

A set of uniformly applied criteria for determining whether a person should be identified as having a particular disease, injury, or other health condition; it usually specifies clinical, laboratory, and other diagnostic criteria.

A standardized management tool for meeting the demands of small or large emergency or nonemergency situations. (FEMA)

A graph in which the cases of a disease that occur during an epidemic (outbreak) are plotted according to the time of onset of illness.

Protocols designed to interrupt the transmission of and reduce or eliminate the occurrence of communicable diseases and infections.

Module 2

Section J: Outbreak Investigations

Term

Line list

A document that contains information related to patient symptoms (in case there is the possibility that it is a pseudo-outbreak), medications, procedures, consults, patient locations, contact with HCP, and host of other factors that might predispose the patients to the infection under investigation.