J10, J11 *Influenza*

RATIONALE FOR SURVEILLANCE

Surveillance of influenza is essential for the early detection and evaluation of new variants or subtypes of influenza virus. The early detection and characterization of these viruses allows for timely annual updates of a vaccine that can prevent deaths and alleviate illness in vulnerable groups of the population.

RECOMMENDED CASE DEFINITION

Clinical case definition

A person with sudden onset of fever of >38°C and cough or sore throat in the absence of other diagnoses.

Laboratory criteria for diagnosis

Virus isolation: Swab or aspirate from the suspected individual, **or**
Direct detection of influenza viral antigen.

Serology: Fourfold rise in antibody titre between early and late serum.

Case classification

Suspected: A case that meets the clinical case definition.

Confirmed: A case that meets the clinical case definition and is laboratory-confirmed (used mainly in epidemiological investigation rather than surveillance).

RECOMMENDED TYPES OF SURVEILLANCE

Routine weekly (at least for the epidemic period) reporting to central level of case-based or aggregated data.

- Suspected / confirmed cases by sentinel practices (general practitioners / health institutions)
- Cases confirmed by laboratory

Other sources of data (hospitals, clinics, emergency rooms, laboratories, vital statistics offices) can also be used.

International: weekly aggregated data on confirmed cases from countries to WHO (FluNet) with information on extent of activity in the community.

RECOMMENDED MINIMUM DATA ELEMENTS

Case-based data for reporting

- Case classification (suspected / confirmed)
- Subtype of virus (if known)
- Date of onset
- Vaccination status if available

Aggregated data for reporting

- For every geographical area (country) and every week: number of cases by age groups, by subtype of virus (if known), by outcome

Case-based laboratory data

- Laboratory number, specimen date (day / month), patient age (years or months), city, state or province of origin of patient, isolation system, type, subtype, isolate designation, similarity to reference strain (Y/N), whether further identification in progress (Y/N), whether sample forwarded to WHO Collaborating Centre (Y/N).

RECOMMENDED DATA ANALYSES, PRESENTATION, REPORTS

Graphs: Number of cases by week, by age group, by virus subtype.

Tables: Number of cases by week, by age group, by geographical area, by virus subtype, by outcome.

Maps: Number of cases by week, by geographical area, by country.

PRINCIPAL USES OF DATA FOR DECISION-MAKING

- Rapid isolation and antigenic characterization of influenza viruses in order to help plan the formulation of vaccine for the following season
- Early detection of influenza epidemics in order to assist in the implementing public health control measures (vaccines have to be given before the onset of an epidemic) and in planning for the possible impact of disease on essential services
- Morbidity and mortality data to estimate the impact and costs of the outbreak

SPECIAL ASPECTS

The speedy provision of isolates to the WHO Collaborating Centres is crucial.

Laboratory surveillance is most specific and is the cornerstone of surveillance.

Sentinel surveillance (by general practitioners) on influenza-like illness is less specific but sensitive and rapid.

CONTACT

Regional Offices

See Regional Communicable Disease contacts on pages 18-23.

Headquarters: 20 Avenue Appia, CH-1211 Geneva 27, Switzerland

Communicable Diseases Surveillance and Response (CSR),

E-mail: lavanchyd@who.ch / outbreak@who.ch

Tel: (41 22) 791 2656 / 2850 / 2111 Fax: (41 22) 791 4878 / 0746 attn CSR