The organization performs surveillance activities to capture and monitor infection prevention and control data.

MONITORING OF PATIENTS FOR INFECTION

Policy: Patients admitted at **INODAYA Hospitals** shall be monitored for development of Health care associated infections (HAI).

Scope: All patients who are admitted in ICUs and other Critical Care areas and all are under surveillance. Follow up in the OPD shall be addressed later on

Activity:

1. Infection Control Nurse shall carry out the surveillance activity. She shall be assisted in this activity by any one designated by Infection Control Team/ Committee/ Management, as deemed fit.
2. The activity shall include monitoring for
   - Post operative wound infections or Surgical Site Infections (SSI)
   - Urinary Tract Infections (UTI)
   - Ventilator Associated Pneumonia (VAP)
   - Catheter Related Blood stream Infections (CRSI)
   - Investigation of any outbreak of infections
   - Management of MRSA/MDR pathogens
3. A Performa shall be filled up as approved by Infection Control Team and all follow up for that particular patient shall be done on this Performa.

4. Such Performa shall be reviewed each day by Infection Control Officer
5. Necessary action for Infection Control purposes shall be undertaken by Infection Control Team as and when required in conjunction with the area concerned and the Consultant(s) on the basis of monitoring exercise.
6. Results of monitoring shall be tabled before the Infection Control Committee in it subsequent meeting and shall be submitted to the Management.

CRITERIA FOR HEALTH CARE ACQUIRED INFECTION

1. Health care acquired infections express themselves in hospitalized patients in whom the infection was not present or incubating at the time of admission. Usually >48 hours after admission.
2. An infection present on admission can be classified as hospital acquired, only if it is directly related to or is the residual of a **previous** admission. Hospital acquired infections include infections with endogenous, flora, originating in the animate or inanimate environment of the hospital.
3. The term health care acquired infection will thus include potentially preventable infections as well as some infections that may be regarded as inevitable.
4. Application of specific guidelines requires that clinical laboratory data be reliable. There must be a high degree of certainty as to when the clinical manifestations of the infection in question had their onset.
5. The appearance in culture of new and different organisms from a previously described site of a hospital acquires infection must be considered a new health care acquired

infection if there is a coincidental clinical continuation of deterioration in the patient's condition.

6. Surgical wound infections are grouped together for infection control purposes. Studies have shown that classifying surgical wounds (Class 1, 11, 111, IV) and Calculating class specific infection rate provides much more precise information about wound infections than does grouping all wound infections together.

References: CDC's NHSN (National Health Surveillance Network)

What is a "bundle"?

A "bundle" is a group of interventions related to a disease process that, when executed together, result in better outcomes than when implemented individually.

Definitions:

1. Health Care Associated Infection (Nosocomial Infection): A localized or systemic condition resulting from an adverse reaction to the presence of an infectious agent or its toxin not present or incubation at the time of admission to the health care facility.
2. Community Acquired Infection: An infection that was present or incubating at the time of admission to the hospital.

NOTE: Hospital Acquired Infections by definition are not necessarily Preventable.

The infection control team carries out the surveillance in the identified high risk areas. Surveillance includes cases of MRSA, open cases of TB, and Blood borne pathogens, MDR organisms. Surveillance

activities include the appropriate precautions needed for these cases. These are done on a daily basis during ward rounds. Surveillance also includes monitoring of waste disposal in these areas. Surveillance includes hand hygiene compliance. Surveillance of health care associated infections is also done in the ICU's. Gluteraldehyde monitoring is done for endoscopy and bronchoscopy rooms. OT – environmental surveillance is done by means of settle plates, aerobic & anaerobic cultures once in a month

a. **Collection of surveillance data is an ongoing process**. The information regarding the above cases is given by the ward nurses to the infection control nurses. The infection control nurses then go through the case file & report and verify the data and indicate the appropriate precaution to be followed for these cases by means of instructions placed inside the case file.
b. **Verification of data is done on a regular basis** by the infection control team. The data on ICU patients on ventilator, with urinary catheter, central lines is captured and entered in an excel sheet. This data is verified b y the consultants in the ICU's in case of VAP, UTI or CRBSI. For surgical site verified by the microbiologist/Pathologist.
c. **Scope of surveillance activities incorporates tracking and analyzing of infection risks, rates and trends.** The rate of VAP, CAUTI, CRBSI, SSI are captured on a daily basis. In case a sudden cluster of any of these is observed in a particular ICU/ ward, then the analysis is done and appropriate remedial measures, training is done by the infection control team. The data are presented in the HIC meetings every month and annual data and trends are also presented.

Nosocomial infection surveillance is designed to investigate, control and prevent health care associated infection. This involves an ongoing systematic collection and analysis of data.

The objective of this surveillance is:

- To know the baseline data of Nosocomial infections
- To detect an outbreak
- To identify high risk patients

Methods of surveillance:

The team of hospital infection control nurses does daily rounds of wards and ICUs. The nosocomial infection rates are calculated monthly for the following conditions.

1. Catheter related blood stream infection (CRBSI)
2. Urinary catheter infection (UTI)
3. Ventilator associated pneumonia(VAP)
4. Surgical site infections (SSI)

These rates are calculated per 1000days.

For e.g.: Number of CRBSI

CRBSI rates = ---------- X 1000

Number of central line days

The denominator includes the total number of days of exposure to a central venous catheter in the selected population in the selected period.

Similarly UTI& VAP rates are calculated per 1000 days.

These are analyzed monthly and presented in the HICC meetings.

Surgical site infection (SSI) rates in clean and clean contaminated surgeries are calculated. The list of surgeries included is as per the SSI form and as per surgical requirement. The infection control nurse gets the details of the surgeries from the OTs. For each patient included in the surveillance, the details are filled in the format. They visit the patient after 2-3 days to look for infection. Once the patient is discharged, the case records and microbiology investigations are gone through at the end of the month for follow up. In case of any infection during the period, the details are noted in the format. This is analyzed every month and presented in the infection control meetings As per schedule (once in a month)

d. Surveillance activities include monitoring the compliance with hand hygiene guidelines.

The hand hygiene of all categories of staff involved in patient care is monitored with the help of hand hygiene checklist. The data is captured ICU/ ward wise. The percentage of compliance is calculated and presented in the HIC meetings. Suggestions for improvement if required are made depending upon the data of the particular ward.

e. **Surveillance activities include monitoring the effectiveness of housekeeping services**. This is done during the daily rounds by the ICN. Random checking of the correct disinfection used by the housekeeping, change of curtains and visible dust is done.

f. **Appropriate feedback regarding HAI rates are provided on a regular basis to appropriate personnel**. The data regarding HAI rates are presented in the HIC meetings as per schedule and annual data and trends are also presented. Suitable steps are taken based upon the data.

g. **In case of notifiable diseases, information (in relevant format) is sent to appropriate authorities**. In cases of notifiable diseases, the information is sent by the ward nurses to Laboratory . The Lab in charge then gives this information to the of health and family welfare and municipal malaria control office in a written format through post. One copy of this report is filed in the MRD; one copy is kept in the patients file. In addition, from the microbiology dept, the L2 – reporting format for laboratory surveillance form is sent electronically to the state surveillance unit every week. This covers diseases like Malaria, Tuberculosis, Cholera, typhoid, paratyphoid fever, hepatitis B and C, dengue, leptospirosis, chikungunya and HIV.

H1N1 status is also informed by the MRD to the state surveillance unit.

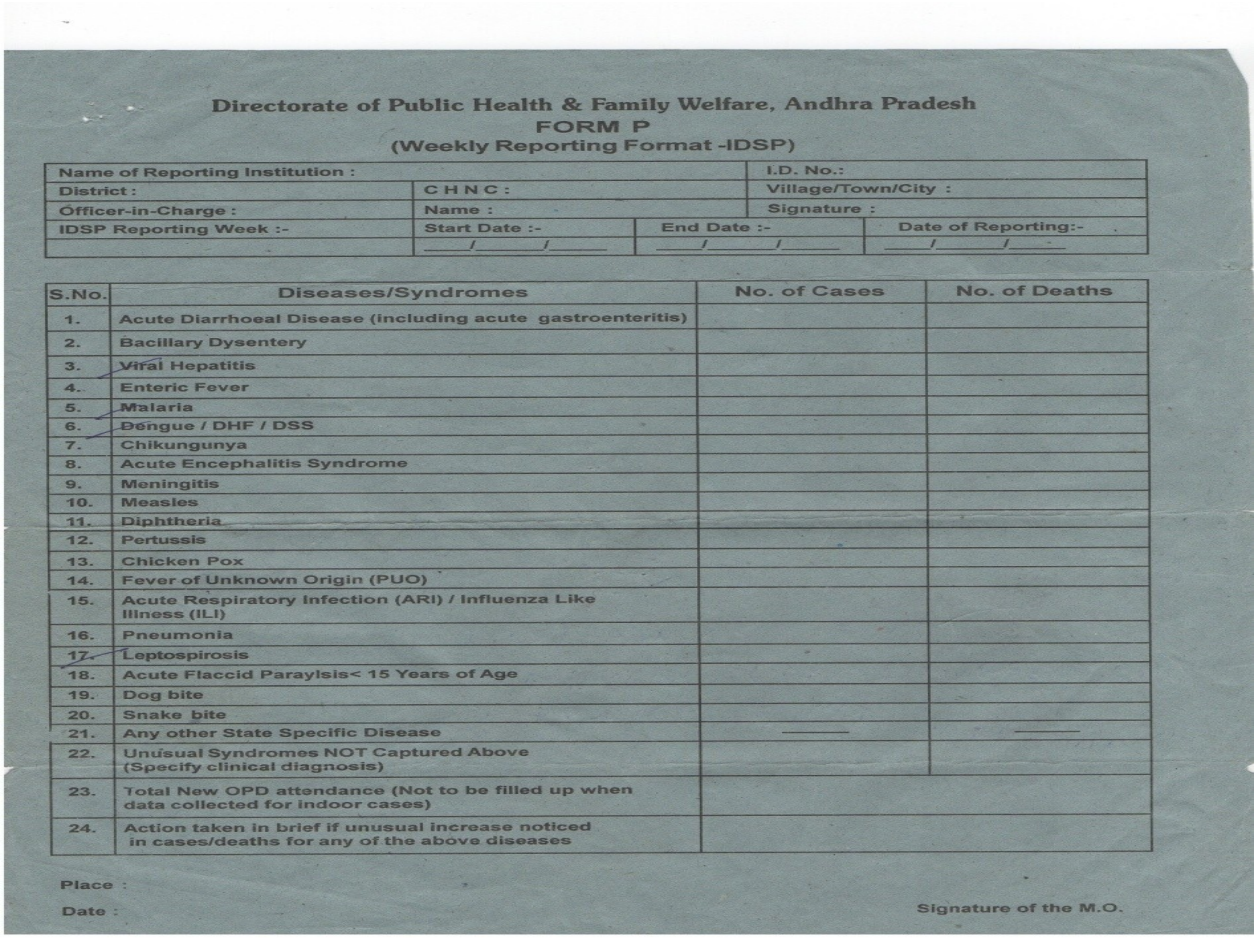
a. Policy for notifying communicable diseases

The diseases below are to be reported to the municipal corporation:

Directorate of public health & family welfare, Andhra Pradesh – Form P

Directorate of public health & family welfare, Andhra Pradesh – Form L

Directorate of public health & family welfare, Andhra Pradesh – Form P



Directorate of Public Health & Family Welfare, Andhra Pradesh
FORM P
(Weekly Reporting Format -IDSP)

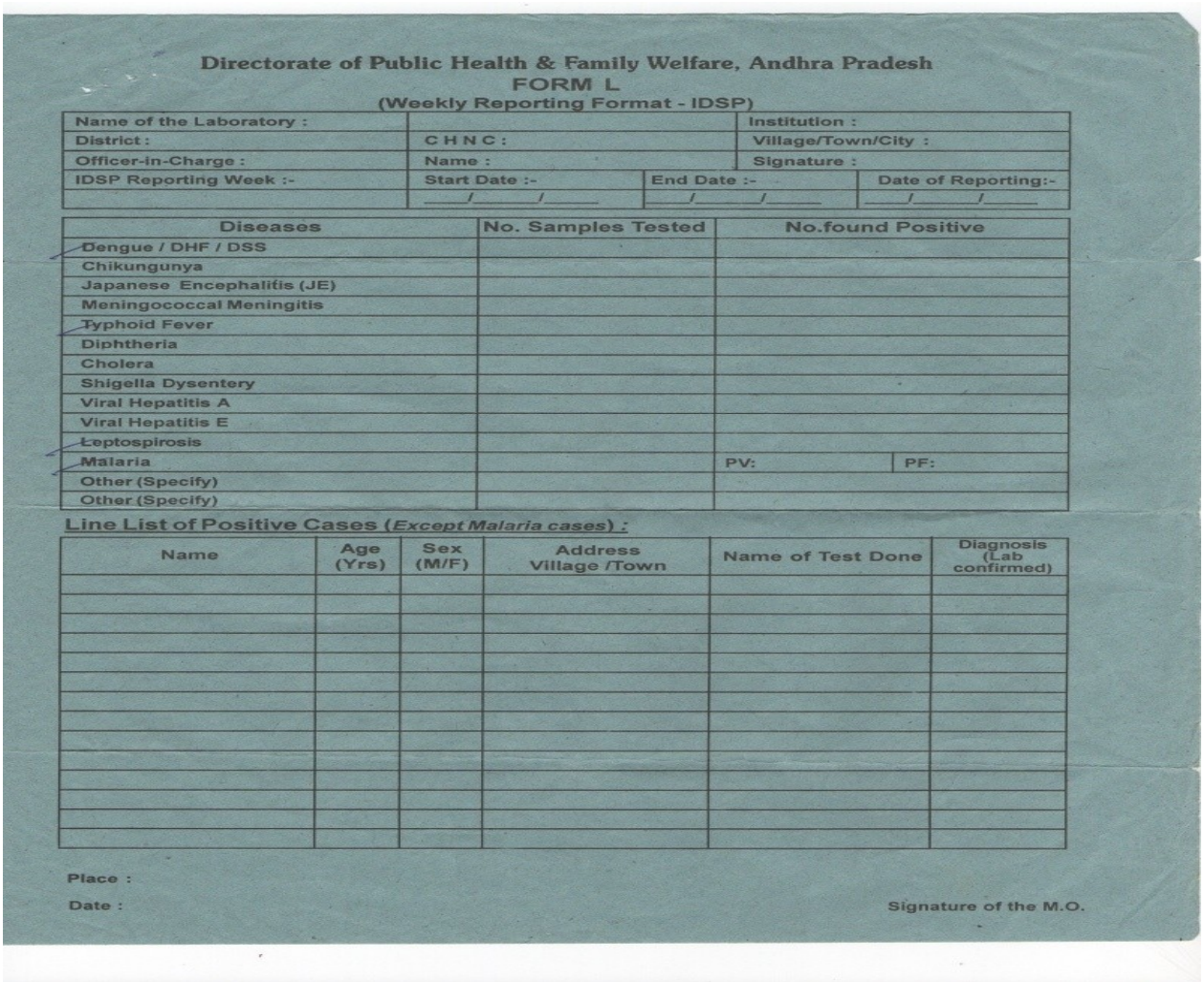
Name of Reporting Institution :		I.D. No.:	
District :	C H N C :	Village/Town/City :	
Officer-in-Charge :	Name :	Signature :	
IDSP Reporting Week :-	Start Date :- ___/___/___	End Date :- ___/___/___	Date of Reporting:- ___/___/___

S.No.	Diseases/Syndromes	No. of Cases	No. of Deaths
1.	Acute Diarrhoeal Disease (including acute gastroenteritis)		
2.	Bacillary Dysentery		
3.	Viral Hepatitis		
4.	Enteric Fever		
5.	Malaria		
6.	Dengue / DHF / DSS		
7.	Chikungunya		
8.	Acute Encephalitis Syndrome		
9.	Meningitis		
10.	Measles		
11.	Diphtheria		
12.	Pertussis		
13.	Chicken Pox		
14.	Fever of Unknown Origin (PUO)		
15.	Acute Respiratory Infection (ARI) / Influenza Like Illness (ILI)		
16.	Pneumonia		
17.	Leptospirosis		
18.	Acute Flaccid Paraylsis< 15 Years of Age		
19.	Dog bite		
20.	Snake bite		
21.	Any other State Specific Disease		
22.	Unusual Syndromes NOT Captured Above (Specify clinical diagnosis)		
23.	Total New OPD attendance (Not to be filled up when data collected for indoor cases)		
24.	Action taken in brief if unusual increase noticed in cases/deaths for any of the above diseases		

Place :
Date :

Signature of the M.O.

Directorate of public health & family welfare, Andhra Pradesh – Form L



Directorate of Public Health & Family Welfare, Andhra Pradesh
FORM L
(Weekly Reporting Format - IDSP)

Name of the Laboratory :		Institution :	
District :	C H N C :	Village/Town/City :	
Officer-in-Charge :	Name :	Signature :	
IDSP Reporting Week :-	Start Date :- ___/___/___	End Date :- ___/___/___	Date of Reporting:- ___/___/___

Diseases	No. Samples Tested	No.found Positive
Dengue / DHF / DSS		
Chikungunya		
Japanese Encephalitis (JE)		
Meningococcal Meningitis		
Typhoid Fever		
Diphtheria		
Cholera		
Shigella Dysentery		
Viral Hepatitis A		
Viral Hepatitis E		
Leptospirosis		
Malaria		PV: PF:
Other (Specify)		
Other (Specify)		

Line List of Positive Cases (*Except Malaria cases*) :

Name	Age (Yrs)	Sex (M/F)	Address Village /Town	Name of Test Done	Diagnosis (Lab confirmed)

Place :
Date :
Signature of the M.O.

Annexure 1:

High risk areas - Surveillance Schedule – Infection prevention & control program

High Risk Areas	Environmental surveillance	Details of samples
Intensive care units	Once in a month	Walls, Floors, workstations, ventilators, suction tubing, disinfectants
Operation theatres	Once in a month	Surface swabs, air-sampling, Disinfectant monitoring
Dialysis area	Once in a month	Walls, Floors, workstations, Dialysis machines , disinfectants
Wards	Whenever clustering is observed	Sampling done under the guidance of Microbiologist
Drinking water	Bacteriological surveillance once in a month	Samples from patient care areas, canteen & kitchen
Centralized Sterilized Supplies Department (CSSD)	Once in a month	Surface swabs & air-sampling