AYUSH

as

COVID-19 Fighter

CORONA VIRUS

- An RNA virus , responsible for Infection of Respiratory tract leading to Pneumonia and ultimately Respiratory Failure
- Multi Organ dysfunction may occur.
- Known Culprit for SARS, MERS etc.
- A new incarnation by mutation is Novel Corona Virus
- Cause of COVID (Corona Virus Disease) -19

Epidemiology

- Not clearly Known
- Only host was believed to be Human being
- Animal Origin is more suspected after Recent detection in Tiger In America
- But animal to man transmission is yet to be proved
- Spreads by Droplet/Micro aerosol Infection and through Fomites.
- Spread through droplet nuclei unlikely as relatively heavy .
- Incubation period – 2-14 days.

Contd….

- **Closed compartment with physical over crowding, poor ventilation , Poor hand and respiratory hygiene, facilitate spread**
- **Fomites play major role**
- **Comorbidity enhances severity**
- **Immunity not yet explored**
- **Impact of atmospheric Temperature and Humidity not yet known.**

Case Definition

- **All symptomatic persons with international travel in last 14 days.**
- **All symptomatic Contacts of Lab Cofirmed cases**
- **All symptomatic Health Care Personel**
- **All hospitalised patients with SARI (Fever, Cough and Dyspnoea)**
- **Asymptomatic High Risk Contacts of a confirmed case(should be tested once between day 5 and day 14 after contact.**

(*High Risk cases are the persons living in same House Hold especially same room or in close proximity or the HCP examining confirmed cases)*

Symptomatology

- 80 % of infected persons are asymptomatic or have very mild to moderate symptoms
- 15 % have moderate to less severe symptoms needing Hospital care.
- 2-5 % have very severe symptoms requiring intensive care
- People> 60 yrs of age , & with HTN, DM, CKD etc are more vulnerable and may have associated xgeration of those diseases leading to multi organ failure.

Clinical Spectrum

Uncomplicated Illness

- **Fever, cough, sore throat, nasal congestion, malaise, headache**
- **The elderly and immunosuppressed may present with atypical symptoms.** ***(These patients may not have any signs of dehydration, sepsis or shortness of breath)***

Mild pneumonia

- **May not be always radiologically detected**
- **Diagnosed clinically more**
- **Child with has cough + fast breathing:**

  fast breathing (in breaths/min): <2 months,≥60; 2–11 months, ≥50; 1–5 years, ≥40 and no signs of severe pneumonia

Clinical Spectrum

Severe Pneumonia (Adolescent or adult)

- **Fever or suspected respiratory infection, plus one of the following**
  - respiratory rate >30 breaths/min,
  - severe respiratory distress,
  - SpO2 <90% on room air
- **With cough or difficulty in breathing, plus at least one of the following:**
  - central cyanosis or SpO2 <90%;
  - severe respiratory distress
  - Radiological /CT scan/Ultrasound findings

Clinical Spectrum

- **Acute Respiratory Distress Syndrome (ARDS)**
  - new or worsening respiratory symptoms within one week of known clinical insult.
  - Chest imaging (radiograph, CT scan, or lung ultrasound): bilateral opacities, not fully explained by effusions, lobar or lung collapse, or nodules
  - respiratory failure not fully explained by cardiac failure or fluid overload.

Clinical Spectrum

- **Sepsis** *(Dehydration, Mottling, CRT>2sec,)*
- **Septic Shock** *(Low mean arterial pressure,signs of decreased vital organ perfusion)*
- **Viral Myocarditis**
- **Renal Failure**
- **Hepatic Failure**

Management

Early Supportive Therapy

- Initiate oxygen therapy at 5 L/min
- conservative and judicious fluid management *(Avoid Fluid overload)*
- Nutritious, easily digestible diet
- Give antimicrobials within one hour of initial patient assessment *(if there is sepsis)*
- Empiric antibiotic treatment should be based on the clinical diagnosis , considering the local antibiotic sensitivity data
- Neuraminidase inhibitors for treatment of influenza
- Empiric therapy should be de-escalated on the basis of microbiology results and clinical judgment

Management contd…

- Closely monitor patients with SARI for signs of clinical deterioration, such as rapidly progressive respiratory failure and sepsis, and apply supportive care interventions immediately
- Communicate early with patient and family
- Communicate proactively with patients and families and provide support and prognostic information
- Moral and Psychological Support
- Timely Referal to Critical Care Unit

Breaking the Chain

- COVID-19 has no specific treatment
- The Disease can be conquered by breaking the transmission chain
- Stop Spreading the Infection:
  - Quarentine
  - Isolation

Contd…

- **Stop getting the infection** :
  - Use three layer mask
  - Don’t touch portal of entry(Nose, Mouth and Eye)
  - Repeated Hand wash for 20 sec
  - Don’t share fomites
  - While in direct Patient Care, use PPE
- **Social Distancing:**
  - The Virus can fall at a distance of one meter after exit
  - Keep at least one meter away from others.
  - Stay at home , avoid crowd

Contd…

- **Destroy the Organism in vitro :**
  - Hand washing
  - Sanitization

Quarantine

Definition :Keeping an apparently WELL person, already exposed to infection , away from healthy ones for a period equal to the maximum incubation period of the disease(14 days in COVID-19) so as to prevent spread to others .

Types :

- ✓ Home Quarentine *(in a completely separate room)*
- ✓ Facility Quarentine *(eastablished in Village or GP ar Urban body level)*

If symptomatic during the stipulated period, shifted to Hospital for testing and treatment

APPLICABILITY AND PURPOSE OF QUARANTINE FACILITY

- **WHOM COULD THIS BE APPLIED TO;**
- An individual international travel within last 14 days
- An individual returned from out side state particularly from hot spots
- Participants of infected congregation (Tobligi Jamat)
- Health Care Providers of COVID Hospitals after two weeks duty
- A wider population- or geographic-level basis. (Sealed Areas)

- **The purpose of quarantine during the current outbreak ; is to reduce transmission by -**
- Separating contacts of COVID-19 patients from non infected community

- Monitoring contacts for development of sign and symptoms of COVID-19,
- Segregation of COVID-19 suspects, as early as possible from among other quarantined persons

ADVISORY FOR Persons under Quarantine

ASYMPTOMATIC

1. Home quarantine for at least 14 days after the last exposure with the case.
2. Use single room with attached/dedicated toilet.
3. Self-health monitoring for development of fever or cough and maintain a list of contacts on daily basis.
4. Active monitoring (eg. Daily visits or telephone calls) for 14 days after the last exposure shall be done by identified Field Workers
5. Direct and high-risk contacts of a confirmed case should be tested once between day 5 and day 14 of coming inn his/her contact

IF SYMPTOMATIC

1. If symptoms develop (fever, cough, difficulty in breathing), use mask, self-isolate and immediately inform 104 / ANM / ASHA/ the identified local health official by telephone

ISOLATION

Defn: Separating the already ILL person (Patient) from others so as to prevent spread to others.

It is done in ISOLATED/Stand alone COVID Hospitals or Wards.

Health care providers deployed in the Isolation Wards should ideally be dedicated, personally protected, and self quarentined in between duty span.

Testing Protocol

Who should be Tested ?

- All symptomatics with international travel history/ hot spot areas in last 14 days
- Symptomatic Contacts of Lab confirmed cases
- Health Care Providers if develop symptoms
- All Patients with SARI/ILI admitted to Hospital
- All High Risk Contacts (at least once between 5^{th} and 14^{th} day of exposer)

Where to be Tested ?

Identified Labs :

- RMRC ,Bhubaneswar
- AIIMS,Bhubaneswar
- SCB Medical College Hospital, Cuttack

Samples (Throat Swab, Serum) to be collected at the concerned COVID Hospital/Ward and sent in VTM under proper protection and temperature , to the above labs .

PROBABLE INFECTED PERSON

- A person with acute respiratory illness (fever and at least one sign/symptom of respiratory disease (eg. Cough, shortness of breath)
- A history of travel to or residence in a country/area or territory reporting local transmission of COVID-19 disease during the 14 days prior to symptom onset
- A person with any acute respiratory illness AND having being in contact with a confirmed COVID-19 case in the last 14 days prior to onset of symptoms
- A person with severe acute respiratory infection {fever and at least one sign/symptom of respiratory disease (eg., Cough, shortness of breath)} AND requiring hospitalisation AND with no other etiology that fully explains the clinical presentation
- A case for whom testing for COVID-19 is inconclusive.

WHO IS A CONTACT

- PROVIDING DIRECT CARE WITHOUT PROPER PERSONAL PROTECTIVE EQUIPMENT (PPE) FOR COVID-19 PATIENTS
- STAYING IN THE SAME CLOSE ENVIRONMENT OF A COVID-19 PATIENT *(INCLUDING WORKPLACE, CLASSROOM, HOUSEHOLD, GATHERINGS).*
- TRAVELING TOGETHER IN CLOSE PROXIMITY (LESS THAN 1 M) WITH A SYMPTOMATIC PERSON WHO LATER TESTED POSITIVE FOR COVID-19.

TYPES OF CONTACTS

HIGH RISK

- Touched body fluids of the patient *(Respiratory tract secretions, blood, vomit, saliva, urine, feaces)*
- Had direct physical contact with the body of the patient, shook hands, hugged or took care of.
- Touched or cleaned the linen, clothes, or dishes of the patient.
- Lived in the same household as the patient.
- Anyone in close proximity (less than one meter) of the confirmed case without precautions.
- Passenger traveling in close proximity (less than one meter) for more than 6 hours with a symptomatic person who later tested positive for COVID-19.

LOW RISK

- Shared the same space (same class for school/worked in same room/similar and not having a high risk exposure to confirmed or suspect case of COVID-19).
- Travelled in same environment (bus/train/flight/any mode of transit) but not having a high-risk exposure.

COMMUNITY BASED SURVEILLANCE

- SURVEILLANCE DONE BY VISITING THE RESIDENCE OF THE CONTACT(S) BY HEALTH PERSONNEL .
- TELEPHONE MAY BE USED IN CERTAIN CIRCUMSTANCES OR FOR FOLLOW-UP.
- INTRODUCE YOURSELF, EXPLAIN PURPOSE OF SURVEILLANCE, COLLECT DATA IN PRESCRIBED FORMAT.
- CONTACTS OF CONFIRMED CASES TRACED AND MONITORED FOR AT LEAST 14 DAYS AFTER THE LAST EXPOSURE TO THE CASE PATIENT FOR EVIDENCE OF COVID-19 SYMPTOMS AS PER CASE DEFINITION.
- INFORMATION ABOUT CONTACTS CAN BE OBTAINED FROM: PATIENT OR HIS/HER FAMILY MEMBERS, PERSONS AT PATIENT'S WORKPLACE OR SCHOOL ASSOCIATES, OR OTHERS WITH KNOWLEDGE ABOUT THE PATIENT'S RECENT ACTIVITIES AND TRAVELS.
- ARI SURVEILLANCE IN THE CONTAINMENT ZONE

Assignments of AYUSH

- Management of Facility Quarantine Centers
- Monitoring of Contacts under Quarantine
- Hands on training to Front line Workers
- Field Surveillance Monitoring and supervision
- Logistics Management
- Isolation Ward Management
- Documentation and Reporting

Thank U