Outpatient follow-up and home care of patients with suspected or confirmed COVID-19.

Ingrid Spessotti - Fiorella De La Lama
Topics

- Elaboration of Biosecurity Protocols, Triage and usage of EPP
- Epidemiological workflow: contact tracing, training, suspected case definition
- Proposal of a Module for Contact Tracing
- Training
- Meetings
- Statistics
Elaboration of Biosecurity Protocols

Institutional Protocols
- Funeral homes and Cemetery.
- Waste Collection and Cleaning Staff
- Clubs, Gyms, Sports Institutions, Recreational activities.
- Geriatrics, Closed Institutions (e.g. Penitentiary).
- Merchants, Companies.
- Carriers

Domiciliary Protocols
TRIAGE

Method of identifying patients associated with COVID-19 symptoms. Implementation of triage first at institutional level and then at local and departmental level. Definition of cases according to epidemiological dynamics.

Identification:
- Travellers
- Contacts of Confirmed cases (Family members, friends)
- Work Activity (Doctors, nurses, EMT workers)
PPE

Use of PPE according to the type of intervention and/or assistance to confirmed and suspected COVID-19 patients.

PPE are:
- Mob_cap
- Gloves
- Camisole or Overoll
- Surgical or N95 masks
- Boots
- Face mask or safety glasses

Implementation
- Optimization of resources due to economic impact
Contact Tracing

It begun on March with users who returned from places with community circulation, who remained in home isolation until the evolution of symptoms. If symptoms were detected, the suspected cases were admitted to the San José Hospital to perform the Nasopharyngeal Swab. This study could confirm the diagnosis of COVID-19, rule out the suspicion and / or continue with the measures of home isolation and / or hospitalization.

In addition to the follow-up we started the monitoring of signs and symptoms associated with the pathology. The signs and symptoms are body temperature, heart rate, respiratory rate and typical symptoms such as anosmia and dysgeusia.
Biosecurity Protocols
Use of PPE
Biosecurity Protocols
Epidemiological Training

- Identification of an probable/confirmed case and its contacts
- Community and conglomerate transmission.
- Outbreak controls according to the epidemiological situation.
- Triage
- Contact Tracing.
- Home-based care monitoring or Hospitalization
- Hospitalization Notification
- Discharges
- Deaths
Isolation at Home: Suspected Case and Contacts

- Home isolation is indicated in symptomatic patients and it is proportional to the maximum incubation period of the disease (14 days). *
- Daily monitoring for clinical signs and symptoms and the clinical evolution of the contacts, also asymptomatics.
- Signs and complications (secuelas) according to age groups.
- For patients with risk factors as chronic diseases the pharmacodynamics related with COVID is studied.
- The characteristics of the new outbreak are established, the new evidence is registered and published by the local Health Emergency Organization Committee (COES in Spanish).
- Strategies are redirected according to the evidence.
Suspected COVID-19 case

There are two suspected case definitions A or B:
A) A person who meets the clinical AND epidemiological criteria:
   Clinical criteria:
   1. Acute onset of fever AND cough; OR
   2. Acute onset of ANY THREE OR MORE of the following signs or symptoms: fever, cough, general weakness/fatigue, headache, myalgia, sore throat, coryza, dyspnoea, anorexia/nausea/vomiting, diarrhoea, altered mental status.
Suspected COVID-19 case

Epidemiological criteria:
1. Residing or working in an area with high risk of transmission of the virus; OR
2. Residing in or travel to an area with community transmission; OR
3. Working in health setting, including within health facilities and within household.

B) A patient with severe acute respiratory illness (SARI: acute respiratory infection with history of fever or measured fever of $\geq 38$ °C; and cough; with onset within the last 10 days; and who requires hospitalization).
Project

“Implementation of an Information System based on libre software for the local management of epidemics in Municipalities.”
On Paper Records for Monitoring

<table>
<thead>
<tr>
<th>SEGUIMIENTO DE CONTACTO</th>
<th>ESTRECHO DE CASO CONFIRMADO DE COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOMBRE Y APELLIDO</td>
<td>DNI</td>
</tr>
<tr>
<td></td>
<td>EDAD</td>
</tr>
<tr>
<td></td>
<td>TELEFONO</td>
</tr>
<tr>
<td></td>
<td>DOMICILIO</td>
</tr>
<tr>
<td>GRUPO FAMILIAR CONVIVIENTE</td>
<td></td>
</tr>
<tr>
<td>NOMBRE Y APELLIDO</td>
<td>DNI</td>
</tr>
<tr>
<td></td>
<td>EDAD</td>
</tr>
<tr>
<td></td>
<td>FACTOR DE RIESGO</td>
</tr>
<tr>
<td>NECESIDADES ALIMENTARIAS</td>
<td></td>
</tr>
<tr>
<td>AGUA POTABLE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOJA DE SEGUIMIENTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>FECHA Y HORARIO</td>
</tr>
<tr>
<td>FECHA Y HORARIO</td>
</tr>
<tr>
<td>FECHA Y HORARIO</td>
</tr>
<tr>
<td>FECHA Y HORARIO</td>
</tr>
<tr>
<td>FECHA Y HORARIO</td>
</tr>
<tr>
<td>FECHA Y HORARIO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SÍNTOMAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIEBRE 37,5 K O MÁS</td>
</tr>
<tr>
<td>TOS</td>
</tr>
<tr>
<td>DOLOR DE GARGANTA</td>
</tr>
<tr>
<td>DIFICULTAD RESPIRATORIA</td>
</tr>
<tr>
<td>FALTA DE CUÑO</td>
</tr>
<tr>
<td>FALTA DE OLFATO</td>
</tr>
<tr>
<td>Personal que realizó el seguimiento</td>
</tr>
</tbody>
</table>

| OBSERVACIONES          |
Proposal: Reduce the Fragmentation

Notifiable Disease Form-COVID-19

Monitoring and evaluation of COVID-19 cases and contacts

Webservice (ws 400) - Nominal Event Registration - SNVS 2.0

National Health Surveillance System.

http://bancos.salud.gob.ar/recurso/instructivo-para-la-notificacion-de-caso
GNU Health COVID-19 Module

Notifiable Disease Form-COVID-19

Monitoring and evaluation of COVID-19 cases and contacts

Reports:
- Isolation Certification.
- Discharge Certification.
- Geolocalization Maps
- Notifiable Disease Form
- Case and Contact Statistics
Contact Tracing Module

- The module allows the decentralized monitoring.
- Notifiable disease form (Argentine integrated health information system - SISA)
- Automatic Notification (on development)
- Generation of cases and contacts
- Knowledge of Risk Factors, Chronic diseases, Geolocalization, Family, etc
- Record of callings and the monitoring of signs and symptoms
- Reports y Statistics
- Data Visualization and Access Rights according to User’s Role (Case Administrators - Callers)
Trainings
Conferences

Inteligencia artificial y ciencia de datos: potencial y desafíos para la gestión de crisis sanitarias.

Implementación de un sistema de información sanitario basado en software libre para la gestión local de epidemias en municipios.

Proyecto

“Implementación de un sistema de información basado en software libre para la gestión local de epidemias en municipios.”
Some Statistics

- Number of records through time.
- Records of contact Tracings
- Record of Notifiable Diseases Form
Some Statistics

- Number of records created for each case administrator.
- Records of callings made for each Monitor
Some Statistics

- Type of cases: Confirmed, Suspected and Contacts.
- Cases per gender.
- Cases per type.
Acknowledgment

- Engineering Faculty
  - The Study Group on Public Health and Applied Technologies
- Municipality of Diamante
  - Norma Salcedo
  - Ulises Zapata
- San José Hospital
  - Gaston Marchetti
  - Zaida Gazali
  - Tulio Perez
- The Team of Monitors from different health care centers.
Work Team

1- Operative Team

2- Municipalities Team
3- Support staff

4- Investigators
Thanks!

saludpublica@ingenieria.uner.edu.ar

https://gitlab.com/gnuhealth_fiuner