WHO WEBINAR
March | 19 | 2020

COVID-19 pandemy:
Experiences from the International Centre for Rural Health

Prof. Claudio Colosio & ICRH TEAM
Contents

• Background information
• Situation in Italy, Lombardy, Milan
• Hospitals: San Paolo and San Carlo
• Surveillance protocol, procedures
• Index cases presentation
• Data collection and preliminary results
• Conclusions
International Centre for Rural Health

• International Centre for Rural Health (ICRH): created in 2007 at the San Paolo Hospital of Milan (scientific coordinator Prof. Claudio Colosio)

• Aim of the Centre: creating innovative experiences of health care delivery in rural areas and promoting activities addressed at rural health at the local, national and international level.

• It was designated as a WHO Collaborating Centre for Occupational Health in 2010

• Terms of reference: ToR 1) Development of diagnostic and exposure criteria for occupational diseases; ToR 2) Coordination of the work of the WHO collaborating centres for developing methods for early detection of priority occupational diseases; ToR 3) Advocate and raise awareness on provision of occupational health services in rural areas; ToR 4) Collection of good practices on improving occupational health and safety in hospitals
International Centre for Rural Health

• Part of the public health system of the Region of Lombardy (annexed at the Occupational Health Unit of the University Hospital San Paolo of Milan)
• Acts in agreement with the University of Milan, Department of Health Sciences
• Serves specific projects of the Region of Lombardy (health surveillance of agricultural workers, risk assessment and prevention of pesticide use in agriculture)
Situation report: Italy, Lombardy, Milan

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lombardia</td>
<td>14649</td>
</tr>
<tr>
<td>Bergamo</td>
<td>3760</td>
</tr>
<tr>
<td>Brescia</td>
<td>2918</td>
</tr>
<tr>
<td>Como</td>
<td>220</td>
</tr>
<tr>
<td>Cremona</td>
<td>1881</td>
</tr>
<tr>
<td>Lecco</td>
<td>386</td>
</tr>
<tr>
<td>Lodi</td>
<td>1362</td>
</tr>
<tr>
<td>Monza Brianza</td>
<td>346</td>
</tr>
<tr>
<td>Milano</td>
<td>1983</td>
</tr>
<tr>
<td>Mantova</td>
<td>382</td>
</tr>
<tr>
<td>Pavia</td>
<td>801</td>
</tr>
<tr>
<td>Sondrio</td>
<td>46</td>
</tr>
<tr>
<td>Varese</td>
<td>202</td>
</tr>
</tbody>
</table>

**Totale**: 14649
San Paolo and San Carlo Hospitals

- A total of 4142 workers employed in two public hospitals in south ovest Milan, operated by the National Health Service. They’re also both university hospitals
- 70 % woman
- Mean age ca. 46 years
- What we have done:
  - Reduction or discontinuation of some medical practices
  - Restricting access and visiting hours
  - Preventive strategies according to WHO shared procedures
Surveillance protocol for healthcare professionals

• “Close contact” = healthcare professional who assisted a patient confirmed for COVID-19 without PPD or household contact with a person confirmed for COVID-19
• Workers who have recently traveled from or live in an area with ongoing spread of COVID-19, are considered at higher risk
• Protocol: Nasopharyngeal swab for real-time RT PCR (rRT-PCR) detection of 2019-Novel Coronavirus (2019-nCoV)

<table>
<thead>
<tr>
<th>ANAMNESIS</th>
<th>MEASURES BEFORE SWAB APPLICATION OR RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASYMPTOMATIC WORKER</td>
<td>Fitness for work</td>
</tr>
</tbody>
</table>

| NEGATIVE SWAB       | HEALTH SURVEILLANCE FOR 14 DAYS ADMINISTRATION OF PHONE INTERVIEW OR SELF ADMINISTERED QUESTIONNAIRE → Daily monitoring of workers’ health – data collection sheet |
## Surveillance protocol for healthcare professionals

<table>
<thead>
<tr>
<th>ANAMNESIS</th>
<th>MEASURES</th>
<th>RESPONSIBLE OF THE APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASYMPTOMATIC WORKER</strong></td>
<td>nasopharyngeal SWAB  &lt;br&gt; if the swab is positive: not fitness for work  &lt;br&gt; if the swab is negative: fitness for work</td>
<td>Hospital management supported by our Unit</td>
</tr>
<tr>
<td><strong>ASYMPTOMATIC WORKER WITH HISTORY OF POSSIBLE CONTACT WITH POSITIVE CASE</strong></td>
<td>nasopharyngeal SWAB  &lt;br&gt; if the swab is positive: not fitness for work  &lt;br&gt; if the swab is negative: fitness for work with use of PPE (surgery mask) and monitoring of clinical symptoms</td>
<td>Hospital management supported by our Unit</td>
</tr>
<tr>
<td><strong>ASYMPTOMATIC WORKER AND NO HISTORY OF POSSIBLE CONTACT WITH POSITIVE CASES</strong></td>
<td>Fitness for work</td>
<td>Hospital management supported by our Unit</td>
</tr>
</tbody>
</table>
Surveillance protocol for healthcare professionals

If COVID 19 infection is confirmed:

• Quarantine lock down after communication to health authority
• Legal requirement of occupational accident linked to health care work
• Return to work only after 2 negative nasopharingeal swab in 24 hours
Index case: San Carlo Hospital

**Index case**

- 53 SWABS
  - 1 POSITIVE MD
    - 134 SWABS
      - 2 POSITIVE NURSES
      - 0 POSITIVE

- 20 SWABS

- 29 SWABS
  - 2 POSITIVE MD

**Infection Spread**

- TOTAL WABS: 349
- TOTAL POSITIVE CASES: 17 (14 FROM HEALTH SURVEILLANCE UNIT, 3 FROM EMERGENCY UNIT)
- TOTAL ISOLATED (AWAITING CONF.): 12
- TOTAL ACCIDENT AT WORK REPORTED: 12
- TOTAL SICK WORKERS (NOT OCCUPATIONAL INFECTION): 3
- TOTAL CASES MANAGED AT EMERGENCY UNIT: 2

**Case IULIANO (from emergency unit): absence from work cause of sickness (not accident at work)**

- 40 swab → 5 positive cases (MDs and nurses)

**Investigation in progress**
Index case: San Paolo Hospital

We had different index cases from health care workers and patients

TOTAL SWABS : 537
TOTAL POSITIVE CASES: 19 (14 FROM HEALTH SURVEILLANCE UNIT, 3 FROM EMERGENCY UNIT)
TOTAL CASES MANAGED AT EMERGENCY UNIT : 2
SWABS PERFORMED BUT WAITING FOR RESULTS: 110
Data collection

Scheda dati salute

SCHEDA RACCOLTA QUOTIDIANA DATI SULLO STATO DI SALUTE PER POSSIBILI CONTATTI COVID-19 E SOGGETTI CON STORIA DI INFEZIONE
In caso di sintomi o TC superiore a 37.5 °C contattare appena possibile il numero 0281844363 (San Paolo) e/o 0242292440 (San Carlo).

**Ospedale**
- San Paolo
- San Carlo

**Data del report**
Month, day, year

**Segni e/o sintomi**

<table>
<thead>
<tr>
<th></th>
<th>Assente</th>
<th>Lieve</th>
<th>Moderato</th>
<th>Grave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispesa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malesse generale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolori muscolari</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cefaléa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mal di gola</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Altre annotazioni stato di salute**
Long answer text

**Temperatura h 8**
Short answer text

**Temperatura h 20**
Short answer text

Bar chart showing the number of reports for different symptoms and hospitals over time.
Preliminary results: temperature (all)

Morning and evening temperature: all workers under surveillance by date

Morning and evening temperature: by follow-up day
Preliminary result: temperature by covid status

Covid positive workers
Preliminary results: symptoms by covid status

- **Caugh**
  - No symptoms
  - Light symptoms
  - Moderate symptoms
  - Heavy symptoms

- **Dispnea**
  - No symptoms
  - Light symptoms
  - Moderate symptoms
  - Heavy symptoms
Preliminary results: symptoms by covid status

Not feeling well
- No symptoms
- Light symptoms
- Moderate symptoms
- Heavy symptoms

Muscle pain
- No symptoms
- Light symptoms
- Moderate symptoms
- Heavy symptoms
Preliminary results: symptoms by covid status

- **Headache**
  - No symptoms
  - Light symptoms
  - Moderate symptoms
  - Heavy symptoms

- **Sore throat**
  - No symptoms
  - Light symptoms
  - Moderate symptoms
  - Heavy symptoms
Considerations

• 90% positive cases are asymptomatic
• General symptoms: Dry cough, dyspnea, sore throat, fever, diarrhea: **BUT also: anosmia, dysgeusia, conjunctival hyperemia**
• Our workers positive to COVID-19 did not need intensive therapy → working age patients have not fatal outcome
• To avoid virus spreading is important to identify immediately the contacts and adopt preventive measures within 5 days:
  • no meetings
  • surgical mask
• FFP 2 e FFP3 → only for operator protection during maneuvers that create aerosols (e.g. bronchoscopy)
• Surgical mask: stops inlet and outlet droplets
Thank you for your attention