10 Key Points About Covid-19

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The **CFR** of COVID-19 can range between 0.25% and 3.0% of a country’s population. Daily number of deaths and cases since the beginning of the outbreak in Iran. The Case Fatality Rate (CFR) was estimated around 7.5%, twice as high as the global average, with only Italy showing a higher rate.

**POINT-1**

**Effect of R₀ on Epidemic Curves**

Source: Lewis, 2006
POINT-2: Don’t repeat Strategic Errors again!!!!!

- **St.E-1:**
  - Risk Parity Resource mobilization and all Hazard
  - Action related to Risk
  - Non-Pharmaceutical Intervention and PI.

- **St.E-2:**
  - *Disorganization in Vaccine production and Health related organs*

- **St.E-3:**
  - *CDC leadership*: Complex task needs task layering

- **St.E-4: Lock down**: National lock down effectiveness (25%) but, small gathering and travelling effectiveness: each one (Δ\%)

- **St.E-5**
  - Is it ok to achieve population Immunity with natural dx ?!
  - Re-infection, Emergence Of New variants, Ab waning, Vulnerability of children - Ethical Issue

- **St.E-6:**
  - *Epidemiologic issues (Active surveillance, trend prediction, Dx burden estimation,....)*
Cough and loss of smell are less common with the Delta variant, while headache, sore throat, runny nose, and fever are among the top symptoms.

- Median IP: 4.4 versus 6.7 days
- Transmissibility: With ct <30 up to 18 days and delta %Δ >α and α 50% > original (2.2 times)
- Hospitalization Rate and H.Risk for mortality: 2
- High School: (40%)- preschool and primary and secondary School (20% each one)
- 60% were male and 40% female.
- The median age was 5.2 (1.8 -10.3) years.
- The median length of stay in hospital, was 9.5 (3.8 -23) days
In some cases, protean multiple organ manifestations have been reported even without respiratory symptoms.

**POINT-5:** In every unexplained organ involvement Covid-19 should be considered.
Six main clinical patterns

- Urticarial rash
- Confluent erythematous/maculopapular/morbilliform rash
- Papulovesicular exanthem
- Chilblain-like acral pattern
- Livedo reticularis/racemosa-like pattern
- Purpuric "vasculitic" pattern

Wheals
Erythematous macules and papules
Erythematous papules and vesicles
Erythematous-violaceous macules and patches
Reticular erythematous-violaceous macules
Violaceous papules, ulceration
POINT-6: Imaging?
POINT-7: CT Scan Indications

A) S&S related:
1- PF ratio < 300,02 Sat. < 93%
2- All ICU admitted pts with possibility of Covid-19 (For F/U: CXR)
3- LRT S&S (retraction, cyanosis, ....)
4- Poor response to Tx and Progressive RD
5- Bilat. Pulm. Infiltration on CXR with score > 8

B) Risk Factor and APR related:
1- I or II ID with high APR (CT preferred in the other last items  CXR preferred initially)
2- Two chronic Risk Factor with APR >= 5 times ULN
3- One Risk Factor with h.g. fever and or Fever > 5 days duration with high AFR
4- An acutely ill and toxic Pt with APR >= 5 times ULN
**POINT-8:** If your pt developed Sever Resp. related S&S consider the bellow conditions

- Pulmonary Emboli
- Acidosis
- F. body Aspiration
- HRAW. Dx
- Bronchiolitis
- Sever Reflux in Infants
- Cardiac problems
### Point-9: Covid-19 or MIS-C?!

<table>
<thead>
<tr>
<th>Covid-19</th>
<th>MIS-C</th>
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<tbody>
<tr>
<td>• The rate is <strong>14 times</strong> more than MIS-C</td>
<td>• Cardiac involvement: higher</td>
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<td>• The rate of prodromal phase with <strong>URI</strong> is higher</td>
<td>• Very high level of CRP, D-dimer and other APR, occasionally protracted to ordinary Tx</td>
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<td>• <strong>Pulmonary</strong> involvement is higher</td>
<td>• Blood clot rate is higher</td>
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<td>• Mild to moderate level of APRs</td>
<td>• In imaging of lung higher rate of CHF, Pleural and pericardial Effusion</td>
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<td>• Short course Ccsx Tx</td>
<td>• MOD due to inflammatory reaction is higher</td>
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<td>• Prolonged Ccsx Tx</td>
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POINT-10: School re-opening: Y or N?!

1) Pandemic Situation
2) Population Immunity and work-place immunity
3) Governmental Support
4) Schools Structure
5) Smart Application
6) People Emotional and Economic status
7) Feasibility and ongoing evaluation of implementation of Protocols
Thank you

Any comment and question?