A REVIEW OF COVID 19 PANDEMIC IN PHYSIOTHERAPY CARE OF PATIENTS WITH CORONAVIRUS DISEASE IN PAKISTAN: LIMITATIONS AND GAPS

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ABSTRACT

Background: The 2019 novel coronavirus disease (COVID-19) has spread to more than 213 countries. Globally as of 2:08 pm CEST, April 12, 2021, there have been 136,696,092 confirmed cases including 2,950,823 deaths and 109,945,653 cases have been recovered, reported to WHO. As of April 07, 2021, a total of 669,248,795 vaccine doses have been administered.

Methods: We examined current state of COVID-19 epidemic and preparedness in Pakistan using publicly available data and documents on COVID-19 government dashboard.

Results: Pakistan reported its first 2 confirmed cases, on 26th February 2020 linked to travel history of Iran. The number of confirmed cases nationwide rose to 725,602 with 39,511 confirmed cases in Punjab, 6,792 cases in Sindh, 13,092 cases in Khyber Pathunkhawa, 731 cases in Baluchistan, 105 cases in Gilgit Baltistan, 12,865 cases in ICT and 2,170 in Azad Jammu Kashmir. To-date 7000 Pakistani pilgrims have returned from Iran and placed in quarantine in Taftan. Directing of pilgrims back to their cities without testing at the border resulted in introduction of virus in country. Pakistan’s weak health care system with 10 beds for 1000 people and less than 0.75% of GDP as health spending is doubtful to be at the COVID-19 shock in case of exponential increase in cases.

Conclusion: It was observed that the professional requirements as laid out by WHO for COVID-19 patients care and management were not strictly followed by the paramedic staff specifically and Medical Professionals generally. The use of PPEs and respirators (N-95) was next to non-existent among the paramedic staff. The doctors were only partially following the patient management protocol to reduce risk of self and others. This gross management has resulted in an exaggerated number of cases among the staff of the hospitals.

Keywords: COVID-19, Preparedness, Three-pronged approach, community transmission.

I. INTRODUCTION

The coronavirus pandemic, originating from Wuhan China, in the last days of 2019 soon took the world by storm. Pakistan, like all other countries was strongly affected.
The general reaction of people to the virus ranged from dismissing it as a hoax, spreading false superstitious beliefs, about it, to actually accepting it as something life-threatening but very much preventable.

Due to the large increase of patients, the number of doctors and health equipment (e.g. face masks, protective gowns) became very limited and urgent. WHO took the responsibility of offering advice to public for preventing from the pandemic (e.g. washing hands constantly with alcohol-based sanitizers), publishing country and technical guidelines, and updating the COVID-19 situation in a rolling basis (W.H.O. 2020). At the same time, many countries locked down to mitigate the spread of pandemic. In order to maintain ‘social distance’ as a way to curb the spread, large scale gatherings (e.g. sport games) had to be suspended, (Qiuhan et al., 2020). Most people are required to ‘observe their self-isolation’ work from home or attend online courses. The traditional way of classroom instruction had to be shifted abruptly to the online platforms.

The first wave of the virus peaked in Pakistan in the months of April-May 2020. There were many infections and fatalities, but surprisingly the bulk of the people remained unaffected, even though they blatantly disregarded protocols; The reason for this development is somewhat unknown, some attributing this to the government's timely and stringent measures to control the virus spread. The second wave, although much anticipated to cause a greater number of infections and subsequent deaths, failed to affect Pakistan as severely as it had hit other countries like UK, US, Brazil and even our neighboring India. Surprisingly enough the majority of the people still weren't practicing standard protocol for preventing infection.

The third wave, unlike the first two, is spreading quite rapidly and causing increasing fatalities day by day. Thought to be caused by a different variant originating from UK, this wave peaking at the time of writing, is mainly affecting the young and the middle-aged. Although vaccination has started, the rate has remained slow due to a variety of factors, mainly the inefficiency of the govt. to vaccinate, and the hesitancy of the people to take the vaccine given the propaganda about it and its many side effects.

The intermittent lockdown has continued for more than a year now. The "smart lockdown", as the government calls it, involves imposing strict measures such as restricted timings for shopping and other public activities in Covid-19 hotspots.

The educational institutes have remained closed for most part of the previous year, something which has continued into 2021.

Activities such as exams and routine learning especially of the younger age groups has been quite stagnated.

The Covid-19 pandemic has affected people from all walks of life. The business and education sectors have been particularly heavily affected.

The stagnation and downward spiral of the stock market continued throughout 2020, something which has only started stabilizing entering into 2021. The imposition of lockdown and timing restrictions has meant that business hours have been cut short, thus affecting small shopkeepers to everyone up the ladder. The normal educational activities were halted throughout whole of 2020, something which has also continued in 2021. The medium of delivering lectures online through applications such as Zoom, Google Meets, and Microsoft Teams was adopted by all. The exams were mostly cancelled or postponed, only students in professional studies were asked to appear in physical on-campus examination. In short, the academic year 2019-2020 was greatly affected by the Covid-19 pandemic.

World Health Organization Emergency Committee stated an outburst of corona virus disease 2019 (Weston & Freeman, 2020) stated in the Hubei province of the People’s Republic of China on March 11, 2020 (WHO, 2020). Previously, many studies presented the most frequent manifestation compresses fever (85%), cough (65%), fatigue (34%), sputum production (31%) and shortness of breath (16%) (Yang et al 2020). Patients presenting with significant mild or unchallenging form of the disease with good prognosis will not require hospitalization. Although treatment will be made compulsory in ICU with invasive support for elderly and aged patients and those with long lasting and incurable conditions which can cause complications like acute respiratory distress syndrome (ARDS), sepsis, shock, kidney and cardiac failure. Physiotherapy is an established profession throughout the world. Globally, physiotherapist, work in primary healthcare facilities likely to have a role in

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management of the patient admitted in hospitals with confirmed or suspected (Covid-19) (Jerre G et.al). It includes recommendations for physiotherapy workforce planning and preparation, recommendations for selection of treatment and personal protective treatments. Issues concerning the clinical practice in the hospital settings were specified on the premises of experience and judgment of professionals, in addition to the review of relevant literature mention in this respective paper. Standard chest physiotherapy, oxygen therapy, nebulizer treatment, exercise and early mobilization noninvasive ventilation and high flow nasal oxygen, endotracheal intubation, protective mechanical ventilation, management of mechanical ventilation, in sever and hypoxemia, prone positing, cuff pressure, nasotracheal suction, method of ventilated patient, equipment’s and hand hygiene were suggested to provide top most care and protection level.

II. METHODS

We used publicly available data to examine the current state of the COVID-19 epidemic and preparedness in Pakistan. We reviewed the documents on the websites of the Ministry of National Health Regulation, Services and Coordination (Covid-19 dashboard) and the National Institute of Health (NIH) daily situation report.

We collected the data of COVID-19 patients from CMH (Combined Military Hospital) Rawalpindi and have recorded the figures of covid patients and their essentials in the form of pictures and tables. This is an observational study where we have observed different patients in the ward and likewise reviewed the articles and other studies.

Current Statistics of COVID Patients in Pakistan.

According to the NCOC (National Command and Operation Center), following are the current figures: (table 1)

<table>
<thead>
<tr>
<th>Type</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmed cases</td>
<td>739818</td>
</tr>
<tr>
<td>Critical cases</td>
<td>4276</td>
</tr>
<tr>
<td>Death rate</td>
<td>15872</td>
</tr>
<tr>
<td>Recovered cases</td>
<td>646652</td>
</tr>
<tr>
<td>Cases (last 24 hours)</td>
<td>5395</td>
</tr>
<tr>
<td>Deaths (last 24 hours)</td>
<td>118</td>
</tr>
<tr>
<td>Tests (last 24 hours)</td>
<td>64685</td>
</tr>
<tr>
<td>Total tests</td>
<td>10942771</td>
</tr>
<tr>
<td>ICT</td>
<td>68066</td>
</tr>
<tr>
<td>Punjab</td>
<td>258441</td>
</tr>
<tr>
<td>Sindh</td>
<td>270310</td>
</tr>
<tr>
<td>Kpk</td>
<td>102290</td>
</tr>
<tr>
<td>Balochistan</td>
<td>20580</td>
</tr>
<tr>
<td>AJK</td>
<td>14978</td>
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<tr>
<td>GB</td>
<td>5153</td>
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</table>

Strategies COVID-19 patients of hospitals in Pakistan

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The current COVID-19 pandemic has cut a swath around the globe due to decentralization and fragmentation of healthcare services in many severely affected countries. However, the situation is comparatively worse in countries having weak healthcare strategies and system.

During the first few days, Pakistan lacked basic medical facilities and all the suspected samples of COVID-19 patients were sent to China. Moreover, only a few quarantine centers were available with limited diagnostics and treatment facilities. With the rapid increase in infection, the facemasks, which were easily available in the market at first hand became scarce and costly. Many drugs and equipment ran short in the pharmacies until the government received testing kits, necessary drugs, primers and equipments from other countries.

Currently, there is a vast range of hospitals in Pakistan that are treating the COVID-19 patients on daily basis. The designated hospitals are mentioned below:

**Designated hospitals for covid-19 patients in physiotherapy care**

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Province</th>
<th>Hospitals with Physiotherapy Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capital</td>
<td>Pakistan Institute Of Medical Sciences (PIMS), Islamabad</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Foundation University Medical College (FUMC), Islamabad</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shifa International Hospital, Islamabad</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Riphah International Hospital, Islamabad</td>
</tr>
<tr>
<td>2</td>
<td>Punjab</td>
<td>Services Hospital, Lahore</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nishtar Hospital, Multan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Allama Iqbal Memorial Hospital, Sialkot</td>
</tr>
<tr>
<td>3</td>
<td>KPK</td>
<td>Khyber Teaching Hospital, Peshawar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ayub Hospital, Abbottabad</td>
</tr>
<tr>
<td>4</td>
<td>Sindh</td>
<td>Jinnah Postgraduate Medical Centre (JPMC), Karachi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DOW Hospital, Karachi.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LUMS Hospital, Hyderabad</td>
</tr>
<tr>
<td>5</td>
<td>Balochistan</td>
<td>Fatima Jinnah General and Chest Hospital, Quetta</td>
</tr>
<tr>
<td>6</td>
<td>Azad &amp; Jammu Kashmir</td>
<td>Sheikh Khalifa Bin Zaid (SKBZ) Hospital, Rawalakot</td>
</tr>
</tbody>
</table>

### III. COVID-19 TREATMENT

The below discussion is intended for clinicians caring for COVID-19 patients during all the phases of disease (from screening to discharge). WHO have published following guidelines for the clinical management of COVID-19. The clinical presentation usually involves:
1) **INTUBATION PERIOD:**
The intubation period for COVID-19 is thought to be of 14 days, with an average of 4-5 days from exposure to symptoms onset.

2) **PRESENTATION:**
The signs and symptoms of COVID-19 present at onset vary, but usually experience:

- Fever or chills.
- Cough.
- Shortness of breath or difficulty breathing.
- Fatigue.
- Muscle (myalgia) or body aches.
- Headache.
- New loss of smell (anosmia) or taste (ageusia).
- Sore throat.
- Congestion or runny nose (rhinorrhea).
- Nausea or vomiting.
- Diarrhea.

3) **ASYMPTOMATIC AND PRESYMPTOMATIC INFECTION:**
Infection with SARS-CoV-2, the virus causing COVID-19, some patients never have symptoms (asymptomatic) and some are not yet symptomatic (pre symptomatic). RT-PCR testing suggest asymptomatic infections can be common and the total number of infections is likely greater than the number of cases reported.

4) **TESTING FOR INFECTION:**
- Detection of SARS-CoV-2 viral RNA is better in nasopharynx samples compared with throat samples.
- Antibody tests.
- Chest radiographs (chest CT).

**TREATMENT BY WHO AND CURRENTLY DONE IN PAKISTAN STEPS:**
- Use of *chest imaging* examines the evidence and makes recommendations for the use of chest imaging in acute care of adult patients with suspected, probable or confirmed COVID-19. Imaging modalities include CT SCAN and ULTRASOUND
Radiological society of Pakistan (RSP) proposed COVID-19 pathway as per NIH guidelines recommendations regarding utilization of chest imaging explaining diagnosis, progression and severity. Progression and severity can be assessed in moderate to severe clinical scenarios. For mild symptoms in a patient with COVID-19, there is no role of imaging and isolation with observation is being suggested routinely. Although the progression and severity of disease can be assessed with arterial blood gases (ABGs), imaging like chest X-ray or CT scan, depending upon availability, can be used for assessment of the extent of pneumonia infiltrates. Till now the role of imaging in Pakistan is limited mostly for progression and severity, and that too in selected cases. These guidelines are being followed in JPMC Karachi and CMH Rawalpindi.

**PPES AND HAND HYGIENE METHOD RECOMMENDED BY WHO.**

Figure 1 WHO recommendations on chest imaging SOURCE: https://iris.paho.org/handle/10665.2/52137

Figure 2 Proposed COVID SOP

Figure 3 contact/ droplet precautions guided by WHO
Figure 4 WHO’s washing hands SOP

ISOLATION WARDS

Figure 5 Negative pressure rooms for less spread of aerosols recommended by WHO

Isolation Wards in Hospitals of Pakistan

Figure 6 isolation wards FOR COVID-19 in PUNJAB, PAKISTAN
PERSONAL PROTECTIVE EQUIPMENTS:

Many procedures like noninvasive ventilation, high flow oxygenation, endotracheal intubation, airway tracheostomy, endotracheal tube suction cardio pulmonary resuscitation, high frequency ventilation, chest physiotherapy, prone position, ventilator disconnection and sputum induction formed by physiotherapist. (Lim WS et.al). Such procedures produce aerosols and drop lets, which exposed to sever lung diseases these drop let’s remain in the air for several hours and can easily be transmitted into another person producing high risk of possible human infection. Therefore, these procedures must be performed by highly qualified professionals in closed room and open windows, with appropriate PPES, in absence of other people. (WHO, Milton DK et.al) suggested several medical PPES including face protection N95 masks goggles, gloves, gowns, head covers and rubber boots. PPE is used in all health care settings, that’s is, acute care, long term care, outpatient care and community care.

Conventional chest physiotherapy

Chest physiotherapy is the term used to eliminate secretions, thus helps to decrease work of breathing, promote lung expansion, and prevention from collapse of lungs in patients with productive cough. It also includes bronchial hygiene using noninvasive airways clearance technique (Huang C et.al, 2019). In the mild form of disease patients are advised to perform breathing exercise independently. Those having severe condition should be constantly under the watch, especially during oro- tracheal intubation and oxygen supplementation.

Exercise and early mobilization

Prolonged immobilization, mechanical ventilation can decrease physical activity, muscle strength, reduce exercise capacity, cardiorespiratory capacity, and cause muscle atrophy. These patients also present with fever, persistent cough, dyspnea, myalgia, and fatigue (Huang C et al, 2019). Weakness is a common complication and is associated with severe condition and require a long rehabilitation. Early mobilization is considered therapeutic strategies to prevent development of any further complications, like: DVT, joint contractures, pressure ulcers,
atelectasis, delirium and development of disabilities. Therefore, acute patients should be asked to perform actively moving or rolling in bed, sitting on the edge of bed, active light limb exercises to increase independent functional activities (Chinese Association Of Rehabilitation Medicine, 2020). This provides neuromuscular stimulation, prevention and reduction of polyneuropathy, improvement of patients’ quality of life.

**Oxygen therapy**

The optimal oxygen saturation in adults with COVID-19 is 19% (WHO, Wu Z, 2020). However, a target SpO2 of 92 % and 96 % seems logical, but needs immediate attention. Supplemental oxygen is usually recommended with such a figure. Moreover, mechanical ventilation is necessary in cases of respiratory failure refractory to oxygen therapy. Being so easily transmitted, health care workers should take all precautionary measures and wear proper PPE when providing treatment to their patients with COVID-19 (Ferioli,2020 & Hui DS et,al,2011). For the prevention of any further complications like dryness of the upper ways (epistaxis) , self-applied sodium chloride nasal gel is mostly suggested , and oxygen supply is changed if condition of patient remain same.

**Nebulizer treatment**

Nebulizer therapy continues to be safe and effective way of treating COVID-19 at home. Bronchodilators should be administered with puffs and sprays in an air chamber/ space (WHO).

**Non-invasive ventilation and high flow nasal oxygen**

High flow oxygen therapy is the non-invasive respiratory support that delivers warm, humidified and oxygen enriched air to the patients, (Frat JP et.al, Ni YN et.al, Ou X et.al). It is typically used for spontaneously breathing patients who require high rate oxygen. It provides respiratory support for patients with acute hypoxemic respiratory failure and can prevent intubation. It leads to improvement in oxygenation, respiratory rate, dyspnea and patient comfort and helps patients’ faster recovery.

High flow nasal cannula (HFNC) is a recent technique delivering a high flow rates between 30l/min and 50l/min. It is simpler to use and appears to be a good alternative treatment for hypoxemic acute respiratory failure (ARF) as it provides constant inspiratory oxygen concentrations. HFNC systems are also used to clear expired CO2 from inspiratory dead space in airways with oxygen enriched gas. It is effective to treat patients with mild to moderate levels of hypoxemic respiratory failure.

**Endotracheal intubation**

Rapid decrease in arterial pressure O2 level is high risk state for covid 19 patients. Therefore, pre-oxygenation is compulsory in negative pressure room to maintain SPO2 93% (Orser BA,2020). Endotracheal intubation should be performed when there is altered of consciousness, risk of airway inhalation, severe acidosis (ph greater than 7.2-7.25), severe hypoxemia. Care must be taken to minimize aerosolization of virus. First, if possible, all intubation can be conducted.

In order to avoid aerosolization, usage of supraglottic device and bag valve mask. Righetti (2019) suggested to add filter between simple respirator and bag valve mask to decrease the virus spread.

**Protective mechanical ventilation**

It is the provision of mechanical ventilation with static inspiratory pressure (plateau pressure) of less than 30 cm of water and tidal volume normal to approx. body weight.

Patients intubated secondary to covid should be treated with lung protective ventilation with tidal volume of 6ml/kg, ideal body weight and maintained plateau pressure under 30 cm H20.

**Management of mechanical ventilation in severe and refractory cases of hypoxemia**

Sedation and continuous neuromuscular blockage is recommended to reduce respiratory device and maintain protective ventilation in patients with Pa02/Fi02 150 or severe hypercapnia (. Following guidelines were put forward by multi-disciplinary teams:

1. Prone positioning

2. Alveolar recruitment and PEEP adjacent for better pulmonary compliance
3. Reposition to prone position when not responded to supine maneuver


5. Extra corporeal membrane oxygenation (Fan E et.al, Gerlach H, 2003, Pham T et.al)

**Prone position**

Prone ventilation for 12-16 hours is recommended recruitment strategy in ARDS in intubated patients (WHO, Fan E et al). The author suggested tons of safety protocols. According to him, maximum results are seen if patients achieve by increase in 10-20mmHg in Pa02/ Fi02 ratio. After 6 hours, with Pa02/Fi02 ratio of 150, lying in supine position, prone reposition must be repeated. If the ratio is less than 20% in supine position, consecutive attempts of prone position should be preferred after every 02 hours.

**Cuff pressure**

Aerosols is a risk factor for invasive mechanical ventilation. Hence, 20-30 mmHg pf cuff pressure with enough pressure to avert aerosol spread is mandatory (Sultan P, 2011). He suggested cuff pressure at daily shift.

**Tube and nasotracheal suction**

Indication for surgery must be balanced by risk of disease transmission to health care workers and physiotherapists, otherwise, leading to potential aerosolization of viral particles.

Considerations are given to PPEs, negative pressure rooms. Traditionally, nasotracheal suction is performed to ease weaning from ventilation support, to facilitate airway suctioning, and secretions clearance to improve patient’s comfort.

However, in covid-19, suctioning of artificial airway is to be avoided so that there is no pressure loss in respiratory system, atelectasis or aerosols spread. Invasive mechanical ventilation closed suction system is recommended (WHO, Tran K, 2012). Use of “stand by” mode of mechanical ventilation is compulsory in case of open suction systems.

**Humidifiers in ventilator patients**

Covid-19 can lead to severe pneumonia, requiring mechanical ventilation. While increased sputum production could cause airway obstruction during mechanical ventilation, heat and moisture exchangers or heated humidifiers or devices that filter their inhaled or exhaled air are considered more productive in preventing such complications.

Consequently, HMEF (heat and moisture exchangers) is more preferable for humidification of exchanged air as it filters heat and viruses. In addition, HEPA (high efficiency particulate air) is allowed on the exhalation valve of mechanical ventilation (Respiratory Care Committee Of Chinese Thoracic Society). Heated humidifiers are daunted in such patients.

**Weaning from mechanical ventilation and extubation**

Identifying patients at risk for post extubation distress using standard clinical criteria (pressure support ventilation) and the available tests the investigators have, is spontaneous breathing test, considering adequate oxygenation: Pa02/Fi02 with PEEP5-7cm H20, hemodynamic stability with low/ stabilized dose or without vasopressor during infusion, an adequate level of consciousness, adequate cough and management of secretion with cough reflex during closed aspiration (Boles JM et.al, 2007 , Tobin MJ, 2006).

T-tube method is avoided as it increases aerosolization (Respiratory Care Committee Of Chinese Thoracic Society). Cuff routine test is performed occasionally, usually for suspicion of upper airway edema or pressure of risk factors for post- extubation stridor.

Patients who clear the spontaneous breathing test should be extubated in negative pressure room or respiratory isolation. Health care professional physiotherapist should follow PPES criteria,
The weaning process starts at the time that the illness that lead to need of mechanical ventilation has partially involve .During the procedure, extra care must be taken including HMEF and closed endotracheal suction. Patient should have adequate level of consciousness. Endotracheal tube must be removed smoothly in order to avoid strenuous coughing. If coughing become necessary, patient must cough effectively, as roughly assist by the presence of coughing in response to endotracheal aspiration. Tube is then collected in infectious waste collector, In ICUs, rapid intubation with experience professional is required. Multi-disciplinary team should discuss beforehand about the patient extubation as the rate of reintubation must be lessened to the greater extent (Fernandez MM,2017 , Cook TM,2020).

Tracheostomy is often performed for prolong endotracheal intubation in critically ill patient (who failed to wean or prolong time of intubation). However, in context of COVID-19, tracheostomy placement pathway have been altered due to poor prognosis of intubated patients and high risk of transmission of aerosols.

Preferably, for spontaneous breathing training periods HMEF connected to trach care is used, to maintain 93 to 96 \% SPO2. Close suction system is essential if aspiration is necessary during spontaneous breathing test, Use of HMEF is strongly highlighted in tracheostomised patient as it causes pain and instability as patient improved their breathing performance and resistance, spontaneous breathing time should show various advancement.

**Equipment and hygiene**

70% alcohol/chlorine based substance is strongly guided for equipment to be cleaned, Health professionals in physiotherapist are advised to wash their hand thoroughly after procedures are performed or direct contact with infected patient (WHO).

COVID-19 is a present day disorder that put forward loads of inpatient care challenges. Above mention guidance and proposals can set out clinical practice guideline for physiotherapist. All over patient hospitalization, physiotherapist play the most vital role as front line practitioners, understanding their role in identifying, containing, mitigating and treating the symptoms of this disease, nevertheless, physiotherapist should aim regarding special care to both reduction of risk and best patient care.

**IV. CONCLUSION AND RECOMMENDATIONS**

The progressing COVID-19 plague has uncovered significant deterrents and defects in the crisis and wellbeing frameworks of Pakistan, with respect to the control of irresistible illnesses. Three territories need quick need, facilitated reactions among government and regions, brought together acquirement of Personal Protective Equipment (PPE) and clinical hardware like ventilators, respirators and so on, the dependable part of the media to keep away from alarm openly, defending of our bleeding edge laborers and medical care laborers, and proficient utilization of data innovation for contact following. A reaction to COVID-19 can deplete country's medical care framework with a devastating effect on economy. Immediate initiation of the greatest degree of public reaction the executives conventions to guarantee the entirety of-government and all-of-society approach is expected to forestall COVID-19 with non-drug general wellbeing measures; focus on dynamic, forceful case finding with prompt testing and segregation, careful contact following and compelling isolate of close contacts. Wellbeing schooling and improvement of mindfulness in the overall population of the reality of COVID-19 and their job in forestalling its spread; Expansion of reconnaissance to identify the transmission chains, by consideration of abnormal pneumonia patients in the observation net, screening a few patients with upper respiratory sicknesses or potentially late openness, as well as testing for the infection existing reconnaissance frameworks (for example frameworks for flu like-ailment and Severe Acute Respiratory disease SARI); conduction of multi-area situation arranging and reproductions for the organization of considerably more tough measures to intrude on the transmission chains.

Travel is the absolute most significant supporter of infection transmission . The public authority needs to support global components for organizing, and giving assets in this crisis circumstance.

The government should take following immediate steps:

The first is a public lockdown to limit pointless social connection.

1. Upgrading testing and pertinent medical services.
2. Thirdly, repurposing structures as separation wards, field emergency clinics and isolate offices.

3. Fourthly, guaranteeing smooth and consistent progressions of supply chains of food, prescriptions and co-ordinations.

4. The fifth is development of social security programs, as BISP, for assurance the most defenseless.

5. Strategies like social distancing- the more we delay the cases the better the medical services framework can work, with lower death rates. Social distancing has been a successful measure for diminished grimness and mortality in past, like the 1918 pandemic of Spanish influenza.

6. Priority Research in regards to the diagnostics, immunizations, and therapeutics to stop the infection spread, and improve treatment results in most productive manners.

Non-drug mediations stay vital for the administration of COVID-19 on the grounds that there are no authorized immunizations or medications yet. The circumstance is very evolutive towards more extensive local area transmission, with various global focal points like Europe and United States of America going towards those figures. The WHO regulation procedure should be changed with incorporation of severe relief measures. Close checking of epidemiological advances and changes, adequacy of general wellbeing procedures and their social acknowledgment is required. Proceeded with serious source control is required by separation of patients testing positive for COVID-19 through scholarly guiding of patients. Contact following and wellbeing observing, severe wellbeing office contamination avoidance and control conventions, and utilization of other dynamic general wellbeing control intercessions with proceeded with dynamic reconnaissance and regulation exercises needs exacting execution.

The COVID-19 pandemic is a trial for the world and Pakistan. It is imperative to learn exercises and makes a move to improve readiness getting ready for all irresistible infection flare-ups later on. More astute utilization of innovation and man-made reasoning in determining and demonstrating for spread of illnesses might be utilized in future. More noteworthy order for readiness arranging, progressing observation, time to time logical warnings, and reactions to irresistible sickness flare-ups, joined by a considerable expansion in financing is the need of great importance.

REFERENCES


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