

Fever, flu and family physicians during COVID 19 pandemic 2020 in India

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ABSTRACT

Fevers - undifferentiated, often unacknowledged, is one of the largest morbidity afflicting in primary care settings and the overall healthcare ecosystem in India. FEVER is probably also the largest public health entity in terms of DALY - (Disability Adjusted Life Years) impacting the working population both in urban as well as rural areas; however, it remains unaddressed by public health programs, which are largely organized through vertical disease-focused national programs. The family physicians see a high volume of undifferentiated fevers throughout the year with seasonal and regional variations in India. Family doctors are not formally linked with the public health programs as India continues to march on selective primary care. Family physicians and medical officers are the most vulnerable for exposure to undifferentiated patient load. The first two health workers who died of COVID 19 in India (Indore) were practicing family physicians. Two mohalla clinic doctors tested positive in Delhi and two other general practitioners have been found to be infected in Mumbai. The media discussions have been on increasing capacity for critical care and the number of ventilators etc., It is also important for the governments to urgently review the functionality of PHCs, CHCs and district hospitals, and create a framework of partnership with standalone family physicians and general practitioners as well as nursing home, small hospitals to play a constructive role in managing the epidemic.

Keywords: COVID 19, Primary Care, COVID in India, Family Physicians in COVID care

Struck with Viral: Fever and Flu in Family Practice

Undifferentiated fever, often unacknowledged, is one of the largest morbidities afflicting the population in primary care settings and the overall healthcare ecosystem in India. Most of these fever and flu episodes are considered minor illnesses within the community. Care seeking patterns include self-medication and over the counter treatment from pharmacies. In rural areas, patients may visit government primary health centers and also visit informally trained providers. But a substantial number of

these patients are managed by the qualified family physician's clinics. Due to experience and frequent encounters, it is possible for family physicians to predict the course of illness, progression, potential complications, and outcomes and thereby provide optimal care. Due to defined outcomes and self-limiting nature, an extensive diagnostic evaluation is not done but most of these conditions are designated as VIRAL FEVER.

The approach of management to these patients is more often syndromic. Depending upon affordability and community profile, a section of these patients does undergo diagnostic investigations and is designated a formal diagnosis. Most commonly such clinical entities include diseases like dengue, chikungunya, upper respiratory tract infections, enteric fever, urinary tract infections, tuberculosis, malaria, etc., Unfortunately, a community-based morbidity profile is not captured as these clinics are not engaged with the formal educational systems or adequately equipped.

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Within the public health system, care is organized in the program model and doesn't have a comprehensive primary care interface with a person-centered approach. Community-based data remains elusive. However, the tip of the iceberg from these undifferentiated fevers also reaches the hospital and tertiary care setting through formal and informal referrals. The ones who reach hospitals are often segregated into formal diagnoses. Lesser common diseases are also diagnosed. Morbidity data available for the planning process originates from hospitals and teaching institutions.^[1,2]

Fever and Course of Illness: Influenza-like Illnesses (ILIs)

Broadly among fever patients, there are two sets of presentations, the first one present with high-grade fever often associated with severe body ache, chills, headache, weakness and sometimes with joints pain. Fever is very high for the initial three to four days. Many of these patients test positive for Dengue and other similar strains during the monsoon season. The second set presents with fever, cough, cold, and weakness. fever subsides typically after fifth days and mostly before one week. Most patients return to their normal self by ten days. It is a dictum in clinical practice in India that any fever which continues beyond ten days is not routine viral fever. After a week of unsubiding fever, entities like enteric fever, tuberculosis, malaria, urinary tract infections come into consideration. Depending upon clinical setting and patient profile, a diagnostic evaluation is also be done early. Family physicians and medical officers running outpatient care see a large share of undifferentiated influenza-like illnesses throughout the year in India with seasonal variations. If all patients with cough, cold and fever are tested, there will be a requirement of billion tests for Influenza, SARS Swine Flu, and other endemic viral strains annually. As a country, we need to be mindful and use our resources rationally and intelligently especially pandemic times. Therefore it is important for family physicians to be knowledgeable know about COVID 19 clinical syndrome.

How COVID is Different from the Routine Flu?

It is difficult to differentiate COVID 19 solely on the basis of symptoms. While extensive information is already available, there are few remarkable features worthy of mentioning with regards to the presentation and clinical course of COVID 19. While there may be asymptomatic carriers or persons with minor symptoms, the typical cases of COVID 19 are presenting with fever and dry cough with no cold and running nose. Shortness of breath sets in about on the 4th or 5th day. Fever is often is intermittent in nature. Very high-grade fever continues beyond ten days, the one which is being associated with interleukin storm. The course of illness is 15 to 20 days or even longer from the day of onset of symptoms. The patients are rapidly deteriorating and developing ARDS (Acute Respiratory Distress Syndrome) within a matter of a few hours; further requiring intensive care units and ventilator support. Lung injury is said to be more due to the inflammatory

process rather than infective infiltration. COVID 19 should not be mistaken with normal flu syndrome. Continuation of fever beyond ten days is unusual. COVID 19 virus is attacking the immune system resulting in an illness condition that is perplexing for clinicians from primary care to critical care.^[3]

Family Physicians and COVID 19 Pandemic 2020

With regional variations, the family physicians see a high volume of viral undifferentiated fevers throughout the year. peak is reached between June to November through the monsoon and rainy season, typically in region like Delhi and NCR. Though new case detection for COVID is likely to continue there may not be an exponential expansion after April 2020 due to temperature and environmental reasons. There is also wishful thinking on better herd immunity due to existing viral strains. However, COVID 19 is a new disease entity, it is not yet possible to predict how the epidemiological pattern will unfold. There is gross uncertainty, though many predictive mathematical models are being applied. Since high volumes of patients at healthcare facilities as a normal practice, we do not have a culture of very high levels of isolation practice except for basic personal protection by healthcare professionals. Family physicians are most vulnerable for exposure to undifferentiated patient load. The first two doctors to die in India due to COVID 19 are family physicians. Personal protective equipment is of utmost importance during pandemic times. COVID 19 is considered to be highly contagious, more is to be known about mode of spread.

COVID 19 - Public Health and Primary Care Considerations

Despite challenges, India has developed enormous capacities in the health sector during the past few decades. The union government and all state governments have responded with tremendous swiftness and massive interventions aimed at the pandemic containment. However, there are inherent systemic challenges also. Traditionally, the public health system is largely organized in the form of vertical disease programs. For e.g., the national tuberculosis control program consumes considerable infrastructure and resources but doesn't have the capacity to respond to Influenza pandemics, common morbidities such as COPD, bronchial asthma or even smoking cessation interventions.

For the pandemic, we must anticipate and prepare for the provision of healthcare to large numbers of patients requiring care if the stage of pandemic reaches community spread. In the long term, mostly 90-95%, would be managed at home or in primary care settings and about 5-10% would require in-patient care. Of those who would require in-patient care, 30% would require critical care, while 70% would require supportive care and oxygen. Even in the best of health systems, the mortality rate among those who would require critical care is upwards of 50% care. So it is clear that family medicine and primary care settings would be extremely critical to provide care and prevent deaths to large numbers of patients in the future.

Way Forward: Recruit, Equip and Prepare Primary Care for the Pandemic

The media discussions have been on increasing capacity for critical care and the number of ventilators etc., It is also important for the governments to urgently review the functionality of PHCs, CHCs and district hospitals, and create a framework of partnership with standalone family physicians and general practitioners as well as nursing home, small hospitals to play a constructive role in managing the epidemic. There is an urgent need to reorganize the primary health care system through the permanent strengthening of the general health system, rendering it capable of absorbing the majority of the morbidities and comprehensive healthcare needs of the communities. Family physicians need to be prepared and equipped for the COVID 19 pandemic challenges.

COVID 19 and the Future of Humanity

This is an extraordinary time in human history. The whole world is under lockdown that again will have a massive impact on future of human beings. Since the pandemic of COVID 19 started to unfold an information tsunami stands in front of us. This pandemic will also be known for the conspiracy theories and as well as grand political narratives. As family physicians, medical practitioners need to be very very cautious and need to keep an eye on the entire discourse. Family physicians need to protect themselves from being consumed by this whirlpool not just as professionals but also as ordinary persons. From ordinary folks to the tallest political leaders, and greatest countries have

been challenged. There are healthcare political debates, heated TV discussions, information campaigns; success stories of governments, political figures, and countries. But facts remain that people are dying. People die of infections every year in unimaginable numbers. But this time there is an asymmetry of unexpected deaths. Infections are no longer just a tropical disease. There is wishful thinking that the world will change forever for a good afterward.

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Conflicts of interest

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