

Role of Clinical Triaging in Strategic Management of COVID-19 Pandemic and its Ethical and Legal Aspects: A Review of Literature

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Abstract

This is a review article based on triaging in COVID-19. The review highlights the importance of triaging. It also discusses the various methods followed in various parts of the world. It also briefly discusses the administrative policies, legal aspects, etiquette and safety concerns of the same. It concludes with suggestions and recommendations based on various studies.

Keywords: COVID-19, Triaging, Algorithm, Guidelines.

INTRODUCTION

The COVID-19 pandemic has challenged the very existence of humankind and has brought immense pressure on the healthcare system. Innovative methods had to be devised in order to manage the ever increasing work load. Patients may have mild, moderate or severe symptoms. All patients do not require intensive care. If the intensive care is filled by mild cases, the patients who actually require such care will be at a loss. Hence the triaging system plays a very important role in strategic management of the patients during a pandemic crisis situation.

This is a review article based on analysis of triaging system devised in another institution based on an article published by Nayan *et al*¹ and comparing the practice followed in other parts of India and globally. The study by Nayan *et al* was conducted in a 1000 bedded tertiary care

multispecialty hospital in eastern India, in southern part of West Bengal. The hospital had to modify its routine practice and make a separate 100 bedded wing dedicated to severe cases of Covid infections and a 'cough clinic' which was made in the lines of 'fever clinic'. These changes were necessary to be started due to the pandemic. The study was conducted on the symptomatic patients visiting their 'cough clinic'. It was found that it is possible to reduce COVID-19 work load by clinical triaging in the cough clinic. An indepth analysis of various systems in place will help to make a blue print for master plan for setting up such triaging centres.

Clinical triaging method

Nayan *et al*¹ devised a method to triage clinically. It was done by them during the period of Aug 1 2020 to Aug 30 2020. The patients are evaluated based on history and symptomatology. At the entrance of the hospital patients are screened by non-contact

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thermal scanning for fever and guided to the clinic from there. The patients attending the clinic are also sent for other laboratory tests including Real Time Polymerised Chain Reaction (RT-PCR) test for SARS COV-2 antigen.

Home isolation was for the clinically stable patients. Unstable and high risk patients were placed in containment rooms awaiting confirmatory reports. Once the RT PCR reports were available patients who were sent for home isolation were called for admission. Their relatives were informed to undergo testing.

The triaging protocol was based on international guidelines^{2,3}. The authors from China explain how they set up the triaging set up based on their experience in 2003 from another SARS epidemic.³

In December, 2019, when many unexplained pneumonia cases occurred in Wuhan, China tests confirmed that it was caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2).⁴

As per the triage guidelines as given by WHO - all patients with SARI at first point of contact with health care system (such as the emergency department) have to be recognised and sorted and emergency treatment has to be started based on disease severity.²

At triage social distancing (1 metre), mask, isolation room are to be available, Patients should be advised to cough or sneeze with tissue or flexed elbow. Hand hygiene has to be advised after sneezing.²

Every epidemic in a country goes through four phases: Phase 1, introduction or emergence in the community; Phase 2, local transmission; Phase 3, amplification; Phase 4, reduced transmission immunity.⁵ During phase 2 and phase 3 a proper triaging system is needed for emergency physicians to give apt care. In an article the authors suggest a two step triaging method as well as the pandemic progresses.⁶

Ministry of Health and Family Welfare, Directorate General of Health Services, EMR Division Guidelines (based on data available on April 7 2020)⁸ tells regarding the series of measures that have been taken by both the Central and State Governments to break the chain of transmission. Though isolation is an option in order to utilise the resources aptly triaging is necessary.⁸

There are three types of Covid Dedicated Facilities:

1. **Covid Care Center (CCC):** Make shift facilities for very mild cases set up in existing buildings

like schools or hostels. Entry and exit with individual rooms are preferred. It should come under a dedicated covid care centre and will be linked to the Surveillance team (IDSP). Emergency facilities to be available.

2. **Dedicated Covid Health Centre (DCHC):** hospitals that shall offer care for all cases that have been clinically assigned as moderate. It is set up in a hospital or a separate block in a hospital. Oxygen support and separate areas for suspected and confirmed cases are to be available.

3. **Dedicated Covid Hospital (DCH):** hospitals that offer comprehensive care to clinically severe cases - a hospital or a block assigned to a hospital.

Patients may be categorized into three groups and managed in the respective Covid hospitals - Dedicated Covid Care Centre, dedicated Covid Health Centre and dedicated Covid Hospitals.

Protect phase strategy in COVID-19 management⁹

Was started in Australia in 2009 during the H1N1 pandemic, when initial attempts at containment were unsuccessful focussing health resources on those who were known to be at a higher risk and thus more vulnerable to complications rather than the entire population.^{9,10} Ish P, Sakthivel P, Gupta N, *et al*¹⁰ in a letter to the Editor, suggested some recommendations based on lessons from the past. WHO categories of COVID-19 can include A, B and C⁹ based of severity of symptoms from mild to severe respectively.

The Kerala state government had adopted a similar ABC triage system since the beginning of the epidemic in India and has been managing COVID-19 successfully and recently awarded the United Nations award for its 'outstanding contribution' towards the diseases-related sustainable development goals.^{10,11}

According to WHO¹² the cases and deaths have increased steadily from December 2019 till May 2021

The CDC has issued SOP¹³ for triage of suspected COVID-19 in non US health care settings on Feb 25, 2021. They have mentioned what all healthcare facilities can do¹³ including communication, triaging, setting up alerts. They have mentioned two separate flowcharts based on limited community transmission and widespread community transmission.¹³

Workplace management in relation to the COVID-19 pandemic

On 3rd march 2020 WHO released a document on getting workplace ready for COVID-19¹⁴ even

before it spread to other countries. It describes in detail the etiquette and discipline to be respected when interacting with others in the workplace.

Legal aspects during clinical management

There are various legal aspects to covid care. There is restriction of right to movement, liberty, also breach of confidentiality¹⁵ may be sometimes necessary when information has to be passed to the health authorities. Nurses are quite vulnerable to risk of transmission¹⁵ due to the closer contact they have with the patients.

The legal aspects of triage and the necessity for a transparent triage system is discussed in detail in the article by Close *et al*¹⁶

Managing Human Resources in Covid Care Triage

From the onset of the pandemic the shortage of healthcare workers was recognised and various guidelines were recommended. The Ministry of Health and Family Welfare, Directorate General of Health Services, EMR division released an advisory for human resource management of COVID-19. The scope of the document is in relation to Human Resource and Capacity Building.¹⁷

Organisational behaviour during pandemic

According to McKenzie Lloyd-Smith,¹⁸ The COVID-19 pandemic can be considered a low-chance, high-impact event. It has changed the dynamics of the organisation from being a hierarchical one to one where autonomy is respected.

Telemedicine in India¹⁹

The steps taken by ISRO, Department of Information Technology (DIT), Ministry of External Affairs, Ministry of Health and Family Welfare, and the state governments played a vital role in the development of telemedicine services in India.¹⁹ After the COVID-19 pandemic the potential of telemedicine was realised by the Govt and the Board of Governors of Medical Council of India (MCI) has adopted the "Telemedicine Practice Guidelines" in 2020 which gives the guidelines, principles and practices to be followed.

Communication skills in pandemic²⁰

Content of communication between health care providers and patients/families during the COVID-19 pandemic as per the associations EACH: International Association for Communication in Healthcare, ACH: Academy of Communication in

Healthcare.

Personal care management of staff handling Covid care centre²¹

With increasing exposure and risk, the health care professionals were given guidelines as to how to reduce their risk of getting infection and to overall stay healthy.

Maintaining quality of hospital services during crisis situation²²

Prepare a well-equipped dedicated hospital facility (DHF) based on maintaining content and delivery type of quality to overcome the global crisis.²²

Preventive strategies play an important role in quality control. This includes infrastructure development, thermal screening, infection prevention and control practices and SOPs, hand hygiene, respiratory hygiene and cough etiquette, environmental infection control, availability and use of personal protective equipment, biomedical waste management.²²

Business ethics and corporate governance in relation to covid care²³

According to Harvard Business Review, COVID-19 is rewriting the rules of Corporate Governance.²³

The shareholder-centric model, which is based on what academics call "agency theory," appears to be giving way to a richer model of governance that puts the health and resilience of the company at its center.

Governance in Crisis: What Healthcare Boards Should be Doing in the Wake of COVID-19²⁴

This advisory highlights the important role of the board and ways that the boards of healthcare organizations can add value during the COVID-19 pandemic.

Occupational health and safety

The guidelines for maintenance of occupational health and safety has been put forward by WHO and ILO.²⁵

Occupational stress management during pandemic

Occupational stress is very high during the pandemic. WHO has introduced a book 'Doing What Matters in Times of Stress: An Illustrated Guide is a stress management guide for coping with adversity' for the benefit of healthcare workers.²⁶

Irfaan M, Naeem F, Afridi M I, Javed A tells

regarding prevention of occupational stress in health-care workers during COVID-19 pandemic²⁷

Strategic hospital management during pandemic²⁸

Upon spread of COVID-19 from China to other countries, medical staff at health care providing centers for special diseases have been challenged to identify suspected cases of COVID-19 among febrile patients with acute respiratory infections. A study by Ghotbi B, Navkhasi S, Ghobadi S, Shahsavari Z, Kahrizi N was conducted to investigate hospital emergency management strategies during the epidemic of COVID-19.²⁸

CDC has also issued guideline on how to Managing Healthcare Operations During COVID-19 under the headings of planning and staying prepared and operating effectively.²⁹

CONCLUSIONS AND RECOMMENDATION

Based on the study I would like to conclude that triaging is a very important step in managing the COVID-19 pandemic. It would help to reduce the workload on the healthcare system and also provide more care to the patients who are in a serious condition. However when the resources are scarce, ethical issue of justice and utilitarianism comes into the picture and pose challenges when deciding who has to be given an ICU bed or not. As the guidelines for triaging system has evolved over time we can see that along with the clinical criterion for screening, more importance is given to reducing transmission to others and to healthcare workers at the waiting area by providing more space, ventilation, sanitisation, maintaining biomedical waste management, appropriate use of personal protective equipment, Cough and sneeze hygiene. Directions, sign boards, charts put up in the hospital from the entrance simplify the process of finding the care facility for the patients. Cost control is also important during this time since resources are limited and wastage of medicines, personal protective equipment, vaccines should be kept at as minimum as possible.

The patients and relatives being in an emotionally stressful situation often resort to violence. Hence protection must be given to health care givers. Proper communication should be there between patient party and care providers. Increasing workload and high tension situations cause extreme stress in the health care providers physically as well as mentally. Adequate rest and rotation on duty

should be given to them to recover from stress.

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