



Review Article

PREVENTIVE MEASURES IN THE DEPARTMENT OF SHALYATANTRA (GENERAL SURGERY)  
DURING CORONAVIRUS DISEASE 2019 PANDEMIC

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ABSTRACT

The challenges of COVID-19 pandemic not only calls for rapidly changing responses with time, but also requires clarity among healthcare professionals about setting protocols at all levels and locations. Moreover these guidelines must be clear enough to be clearly understood by all stakeholders and should include all the modifications required to count for local needs and availability (or still better- paucity) of resources. On one hand all platforms of knowledge circulation are flooded with information, it is difficult to pick the time and place appropriate set of guidelines which are not only endorsed by appropriate authorities but also practically possible with current ground realities in terms of supplies and local needs. This work essentially dwells on an endeavour to go through all recent works on the topic and compile the best possible set of guidelines require for the department of *Shalyatantra* (Surgery) with corona relate concerns. After an extensive online search for the above mentioned requirements the relevant excerpts are compiled. Although all efforts are made to search for most recent twists till date it is almost sure that these will lose relevance with time and will need continuous update.

**KEYWORDS:** Preventive measures, General surgery, Coronavirus Disease 2019 pandemic.

INTRODUCTION

For Coronavirus 2019 pandemic defeated all efforts of mankind to fight it, needs extraordinary efforts and timely measures. These measures will have striking changes with respect to time, place and availability of resources, and changes will be imperative. World Health Organisation, Government of India (through The Ministry of Health and Family Welfare), and other authorities have been continuously working to establish the guidelines for various organisation and people at large. Although adequate care has been taken to include socio-economic differences but since it is an unsteady situation, these need fast updates. Although this struggle has social, economic and health implications; medical professional and protocols guiding them forms the most important nodal point around which this struggle is going to be woven. With an extensive online search from last three months, these guidelines are compiled. Care has been taken to be lucid, clear and easily comprehensible. Only relevant parts have been compiled for the Department of *Shalyatantra*, Indian system of Medicine.

Review

The locations to be taken care of are the Surgery Out-patient department, the Inpatient

department (general and covid dedicated), Operating rooms (routine and covid dedicated), ICU and recovery areas. The preferred practice is briefly described under the following heads:

**Screening:** Common across all disciplines (as per MOHFW).

Three questions to all patients

- Fever or sudden onset of respiratory infection with any one of – shortness of breath/ cough/ sore throat.
- History of travel – in affected countries in past 14 days.
- History of contact with confirmed COVID-19 positive cases in past 14 days.

**Role of telemedicine:** Lockdown and quarantine in COVID-19 times has increased stresses of daily life, unexpected economic burdens, communicable and noncommunicable diseases, and various mental health sequelae.<sup>[9]</sup> While access to medical care is not in sync with social distancing norms, hence telemedicine has a big role to play.

- It decreases non-Covid burden on hospitals.

- b) It decreases chances of spread of diseases among patients, from patients to healthcare providers and vice versa.
- c) It allows even geriatric or otherwise vulnerable healthcare providers to participate in difficult covid era.
- d) It allows morbid patients to access healthcare consultations in lockdown periods without the risk of contracting the virus.
- e) Forward triage– Advise and prioritise patients before they visit hospital.
- f) Can take expert opinions even from healthcare workers and Intensivists who are in isolation. Teaching and training of healthcare personals. Electronic - ICU management of Covid positive patients.

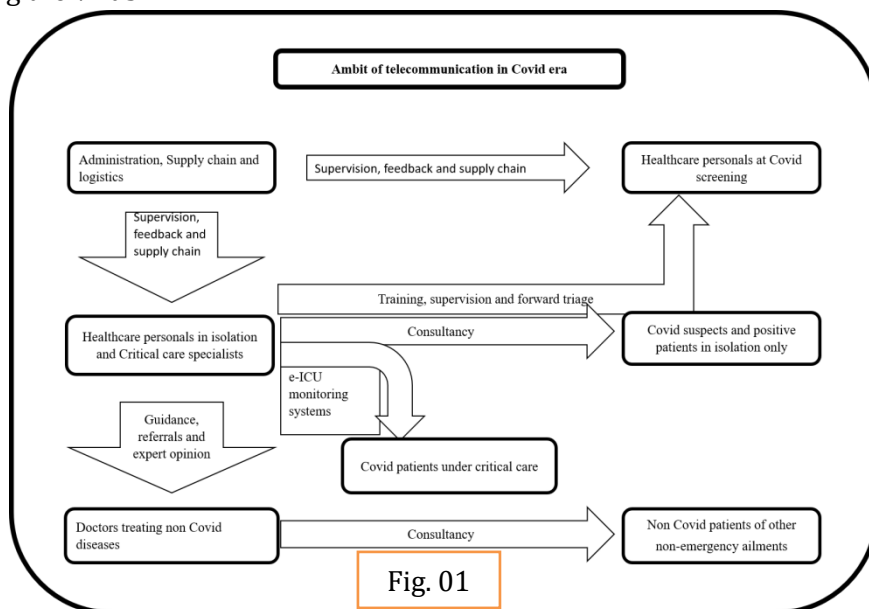


Fig. 01

**Surgical team (to manage COVID-19 patients)**

- a. One specialist
- b. Two medical officers.
- c. Two staff nurses.

This team should be ready for all suspected patients and be optimally trained in handling the personal protective equipment and sampling; apart from the management of COVID-19 patients.

**Universal precautions**

- 1. The number of staff managing a suspected or confirmed patient should be kept to a minimum

- 2. These patients should wear a properly fitted N95 mask
- 3. If a patient is in distress or cases requiring surgical intervention, the specialist should be involved and all staff must use PPE.
- 4. The body fluids, tissues, mask and other apparatus in contact with the patient and the operating theatre should be cleaned as per biohazard based on current available protocols.

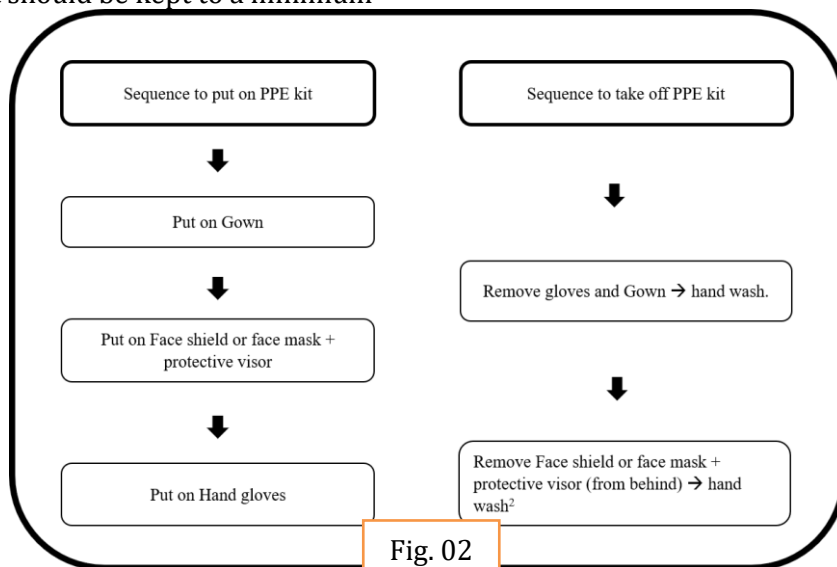


Fig. 02

## Documentation

Any suspect patient under investigation (PUI) must first be given a mask and all staffs managing a suspected or confirmed patient should wear PPE.

The staff involved in the screening and investigations performed should clearly be documented as per MOH standards.

## Designated site for suspected and confirmed patients

The location of such wards should ideally be nearest to the point of entry which is either at the patient admission centre or the isolation ward.

## Dedicated operation theatre

- All tertiary hospitals should have a fully equipped and although negative pressure ventilation is recommended, it is more essential for patients requiring general anaesthesia.
- It should be near to the entry point.
- Family members and visitors are not allowed.
- All elective surgeries should be deferred.

## Emergency surgeries

The recommended number of staff to manage these patients during surgery is 6: (One Specialist + One Medical Officer+ One Anaesthetist+ One Anaesthetist Medical Officer+ One Scrub Nurse + One Circulating Nurse.

**Anaesthesia-** Regional anaesthesia is highly recommended as compared to general anaesthesia. If the only possible option is general anaesthesia, this should ideally be performed in a negative pressure setting with the routine biohazard measures implemented during and post procedure. Intubation and extubation should be done in negative pressure environment with full PPE.<sup>[4,5]</sup> Consider thromboprophylaxis throughout the hospital stay.

## Surface and electromedical sanitization

1. Clean with chloro-derivate solution.
2. Rinse and dry.
3. Disinfect with chloro-derivate solution in a concentration  $\geq 0.1\%$  for more than 1 min.<sup>[3]</sup>

## Ayurvedic interventions

For prevention of spread of infection telemedicine can be used to encourage

- a) Daily intake of (as per local availability) - *Aamalaki (aavla)*, *Chavanprash*, *Guduchi (giloy)*, *Haridra*, *Madhu* (Honey).
- b) Citrus fruits
- c) *Yoga*
- d) *Pranayam – Anulomvilom, Kapalbhathi*

For asymptomatic Covid positive patients in isolation

- a) Mouth Gargle– Twice daily with a solution of *Haridra* (turmeric)– (1tsf mix with a glass of Luke warm saline water).
- b) Once daily morning intake of decoction of *Guduchi*, *Kali mirch* and *Tulsi* or a decoction of *Cumin*, *Sundhi*, *Sauf*, *Tulasi*, *Ajvain*, *Lamon*.
- c) Once daily evening intake of *Haridra* (turmeric) mixed with a glass of lukewarm milk.

## DISCUSSION

Teamwork is the need of hour and the instruments required for same essentially requires communication among all stakeholders. The communication should be easily comprehensible, practical and updated. It should include all the modifications required as per resources available.

## CONCLUSION

An attempt to include recent updates for Department of *Shalyatantra* is made but need for continuous update cannot be over emphasised.

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