



# International Journal of Surgery Science

E-ISSN: 2616-3470

P-ISSN: 2616-3462

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2021; 5(2): 214-215

Received: 25-02-2021

Accepted: 27-03-2021

**Dr. Pooja Pandey**

Junior Resident, Department of  
General Surgery, MIMS,  
Barabanki, Uttar Pradesh, India

**Dr. Singh Sandesh Bharat**

Assistant Professor, Department of  
General Surgery, MIMS,  
Barabanki, Uttar Pradesh, India

**Dr. Ashutosh Gupta**

Assistant Professor, Department of  
General Surgery, MIMS,  
Barabanki, Uttar Pradesh, India

## Changing trends in surgery during covid times: A tertiary care hospital experience

**Dr. Pooja Pandey, Dr. Singh Sandesh Bharat and Dr. Ashutosh Gupta**

**DOI:** <https://doi.org/10.33545/surgery.2021.v5.i2d.694>

### Abstract

The Covid 19 pandemic has reduced the number of patients visiting a tertiary health care facility. This has caused an increase in manpower and resource consumption; to tackle the current scenario efficiently we must understand these changing trends to plan for a better future. The WHO surgical checklist offers a tool to reduce the morbidity and mortality. With the advent of the corona virus, a crisis-like situation has occurred. To settle this crisis, modification in the WHO surgical checklist need to be done by implementation of new surgical guidelines so that all kind of surgeries could be possible without risking the life of surgeons, nursing, paramedical staffs, and ground staffs.

A Brief outline is drawn keeping in line with the WHO surgical check list, to lay a “Neo surgical check box”.

**Keywords:** Covid 19, surgery, changing trends, neo surgical checkbox

### Introduction

One of the limbs of the medicine is surgery where according to the French surgeon Ambroise Pare performing surgery is “to eliminate, restore, separate, join and repair the defects of nature”. Whether it's the arena of the father of surgery or the age of Huntarian <sup>[1]</sup> the ultimate goal is to attain patient safety and security.

Even today as time progresses surgical discipline, mannerism, etiquettes, techniques are seen to be at the par. From the field of isolation, surgery is moving towards multidisciplinary approach where surgeons stay in a symbiotic relationship especially with anesthetics and the policy of mutual respect, noninterference prevails. <sup>[2]</sup> More focus has been given to team effort, prompt action, early diagnosis, management along with rehabilitation <sup>[3]</sup>.

The viral pandemic that occurred in the last century wherein the infection rate, mortality rate respectively were high and the fatality rate was found to be low. During the three waves of infection, the mortality rate in India alone stood to be around 18 million. As a result of the avian pandemic, an “Open-air hospital” concept came in front of us and emphasis had been given on social isolation, hand hygiene, and wearing of face masks <sup>[4]</sup>. Again, the world is facing a similar situation with the advent of corona virus (SARS-COV2) where the normal life, as well as normal hospital environment, came to a standstill mode. Comparing with the first wave, the second wave seems to be more devastating as new symptoms were noticed in patients along with the mutant strain of corona virus that has taken an upper hand over the original form of SARS-COV- 2 <sup>[5]</sup>.

Covid pandemic has put a halt on the surgical cases where elective cases are getting canceled and emergency procedures are being done at the will of the hospital in the lieu of scarcity of resources <sup>[6]</sup>. Elective surgeries are those which are done at the defined place, defined time with defined recovery. In these surgeries, a patient knows about the risk benefits ratio beforehand. But in emergency surgeries, nothing is planned as there is only one priority that is to save the life of the patient at any cost. Covid has posed a lot of negative impacts mostly in the field of surgical branches where the decline in the rate of the surgeries and delay in the care offered to them has been noticed. In a survey conducted by Massachusetts General Hospital among 534 patients 31.7% of breast cancer patients experienced a delay in screening as well as in the initiation of the treatment or providing treatment.

**Corresponding Author:**

**Dr. Pooja Pandey**

Junior Resident, Department of  
General Surgery, MIMS,  
Barabanki, Uttar Pradesh, India

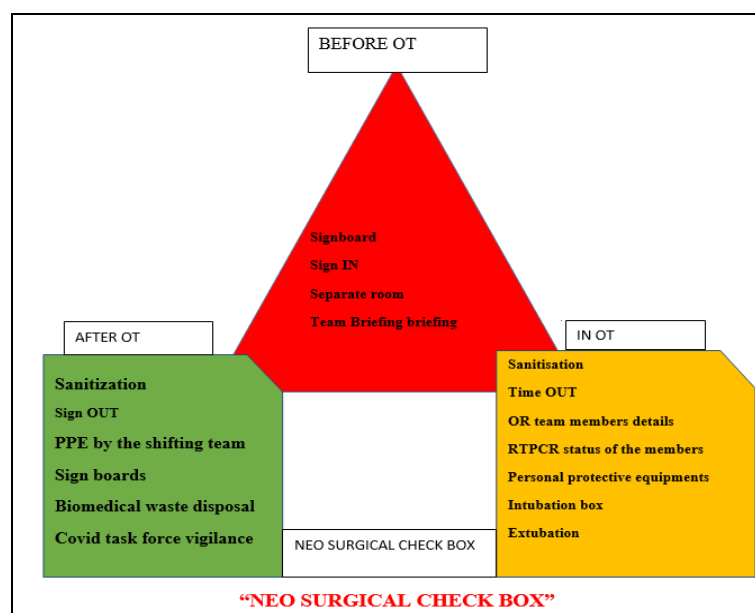
There is a complete paucity in mammograms observed out there. Wake Forest Baptist Health's (WFBH) survey showed a 27% reduction in orthopedic surgery and a 34% decline in breast surgery [7]. As compared to pre covid times there is a reduction in the number of surgeries (52.2%) as shown in Goyal N. study. Only 11.3% of non-emergency patients got operated on compared to 57.7% at pre covid times. [8] As soon as the situation gets into its normalcy there will be a huge burden on surgeons. Hence it's high time to adopt "new normal" norms into the field of surgery.

WHO surgical checklist offers a tool to reduce the morbidity and mortality [9]. With the advent of the corona virus, a crisis-like situation has occurred [10]. To settle this crisis, modification in the WHO surgical checklist need to be done by the implementation of the new surgical guidelines so that all kind of surgeries could be possible without risking the life of surgeons, nursing, paramedical staffs, and ground staffs. As said "Rules are easy to break than to form" this mindset needs to be

transformed into "Hard to make and harder to break".

A study is being conducted in a tertiary care hospital where all surgical branches are included. To start elective surgery first of all stigma and fear need to be worked upon. Stigma and fear are seen not only in laymen but also in health care workers. Frontline workers are working day and night in stabilizing the covid positive ones at the risk of their life. To handle the situation there should be the availability of plenty of resources which includes personal protective equipment (PPE), negative pressure operation theatre, filter at the head end of the patient, intubation box, proper disposal of the covid waste etc, to minimize exposure to aerosols. To achieve this, a roadmap has to be laid down which gives clear cut instructions, having an emphasis on signboard mentioning how to handle surgical covid patients.

A Brief outline is drawn keeping in line with the WHO surgical check list, to lay a "Neo surgical check box".



NEO Surgical Check Box

By following the instructions laid down in the neo surgical checkbox the infection rate to the health care workers will be minimized and immediate surgical care can be offered to all covid and non-covid patients in the same setup.

### Conclusion

This survey will provide a robust and simple checkbox on assessing the covid patients, providing exact surgical care, and help them in their speedy recovery at the very minimal risk to the health care workers.

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