Dear Editor,

Coronavirus disease-19 (COVID-19) pandemic has engulfed the world rampantly. With a rapid increase in the number of patients affected with it, the world is adopting measures to work from distance. Though all demands of a doctor’s job cannot be met distantly, out-patient department (OPD) is being shifted to the digital world with the help of telemedicine. Telemedicine is defined as delivery of health care and the sharing of medical information for diagnosis and treatment over a distance using video conferencing or email transactions. [1] It enables us to communicate and share data without physical contact with patients. The outpatient interaction of an anesthesiologist is during preanesthetic check-up (PAC). The concept of utilizing telemedicine for PAC is not new. Chatrath et al. had hinted using this technology for anesthesia consultation prior to admissions way back in 2010.[2]

PAC before any surgical procedure involves history taking, physical examination, airway assessment, and reviewing blood, electrocardiographic (ECG), radiological and other reports. The risk of undergoing surgery is determined and a perioperative plan is formed, and discussed with patients. If a referral from any other specialty for comorbidities management or any special investigation like resting or stress echocardiography or pulmonary function test is required, it can be asked for at this time. All the above can be done using a two-way video conferencing platform [Figure 1]: Proposed Plan for TelePAC execution]. Use of a preanesthetic checklist or a “TelePAC” form [Appendix 1] may be of help. This “TelePAC” form can be modified/
adapted or incorporated with existing PAC form as per local and institutional needs. If the patient is deemed fit for surgery, he/she can be asked to proceed for hospitalization. Certain lifestyle modifications like cessation of smoking, increasing daily activity, or initiation of breathing exercises may also be advised. Remotely done anesthetic evaluation is shown to be effective and acceptable to clinicians and patients in western studies. Some authors even found it as reliable as in-person evaluation. The initial studies were done using two separate facilities enabled with telecommunication devices and the patients needed to visit nearest such facility in person. With the advancement of technology and the availability of smartphones, it is possible for the patients to have similar video-conferencing without moving out of their houses.

However, not all are comfortable with digital interaction with their doctors. In a study by Fishman et al., only 53.9% patients out of 728 were willing to undergo PAC via videoconferencing. The main reasons for not favoring it were the preference of interaction with their doctor in person and concern of privacy while being videotaped.

Another off-putting aspect is technical issues like a low bandwidth of internet which may cause problems in a two-way communication. Audio or a video may freeze midsession, causing irritation to both parties. The investigations uploaded may not be properly photographed or of sufficient quality and requesting a second upload may cause delay in surgery.

Despite all issues, with the advent of COVID-19 pandemic and the concept of social distancing, telemedicine is being increasingly utilized by many specialties to meet the need of their patients while maintaining physical distance. But despite the proven benefits of this technology, it has still not been used for conducting PACs. The apprehension of being unable to examine airway, unavailability of option of auscultation, and adjusting to virtual rather than real communication with patients may be a cause. For some, unavailability of a telemedicine department may be a hindrance. However, Solanki et al. have suggested utilizing video conferencing (with any smartphone) to examine surgical patients before admission.

The intention of this article is to reemphasize the utility of tele and video conferencing in these perilous times. Avoiding direct patient interaction and a virtual airway examination can reduce the exposure of our colleagues. “TelePAC” clinics are a promising substitute to PAC OPDs. Once found fit

Figure 1: Proposed plan of TelePAC
in “TelePAC,” the patients may be examined (including auscultation) physically on hospitalization for surgery. Telecommunication if utilized to its full potential is an effective tool for tiding over crises like curfew, any future lock downs, or simple inability to visit a hospital in-person.

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There are no conflicts of interest.

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Appendix 1: TelePAC FORM

TelePAC FORM

(Questions to be filled by the Patient)

Hospital Identification NO: .................................  TelePAC visit: 1/2/3

Name:  Age/Gender:  Weight:  Height:

Surgery to be done (To be filled by Surgeon/Anaesthesiologist): .................................................

Comorbidities: Do you have or used to have any of these (Tick appropriate Box/Boxes if answer is yes and answer questions)

- [ ] Increased Blood Pressures.
  - For how long do you have it? ..........Years
  - Do you take any medicine for it, If yes what? .................and Duration
  - Are you regular with your medicines? Yes/No

- [ ] Increased Sugar/ Diabetes.
  - For how long do you have it? .......... Years
  - Do you take any medicine for it, If yes what? Oral Tablets/Insulin...........since .............Years
  - Are you regular with your medicines? (Yes/No)
  - Where you ever admitted for any serious decrease or increase in sugars? (Yes/No)

- [ ] Thyroid Problem
  - For how long do you have it? ..........years
  - Do you take any medicine for it, If yes what? ..........................years.................
  - Are you regular with your medicines? (Yes/No)

- [ ] Heart disease
  - Do you know what heart disease is it? (Yes/No)
  - How long have you had it? .................................years
  - Do you have stent/stents in your heart? (Yes /No)
  - If yes how many? ......................
  - When were they placed? ............
  - What medicines are you taking for heart disease? (Name all medicines)
  - Do you still feel any problems related to heart disease? (Yes/No)
  - Please email any echocardiography report/ Cardiologist prescription/ angiography you have

- [ ] Any breathing problems/asthma
  - For how long do you have it? ..........years
  - Do you take any medicine for it, If yes what? .............years........
- Are you regular with your medicines? (Yes/No)
- When was the last attack you had?..............

☐ Do you get up often during your sleep/ Do you have Sleep apnoea.
- How long have you had this problem?...............years
- Do you feel sleepy in day? (Yes/No)
- Do you use any machine while sleeping? (Yes/No)

☐ Any previous surgery
- How many surgeries have you had before..............
- What type / name of surgery/ surgeries have you had before?............... 
- How long ago?............... 
- Any history of blood transfusion.............

☐ Allergy to any medicine
- If yes what medicines are those? (name all)

☐ History of tuberculosis
- How long ago?
- How long did you take medicines?
- Did you complete course?
- Any side effects?

☐ Do you smoke?
- How many packs a day?
- Since when have you been smoking
- Are you a ex-smoker?

☐ Any other addiction?   Alcohol

☐ Did you receive any chemotherapy?
- Do you know drugs given? (Yes/No)   Name them..............................
- Duration of Chemo............................
- Last dose taken date...........................

Your blood pressure if you know.................................................................
## Examination

(To be filled by Anaesthesiologist on Telepac visit)

**General:**  
- Palor □  
- Icterus □  
- Clubbing □  
- Oedema □

**Effort Tolerance:** 1/2/3/4 Floors

**Respiratory:**  
- Respiratory Rate: ………./Min  
- Breath Holding Time: ………. Seconds

**Pedal Edema:** Present/Absent

**Airway:**  
- Mouth Opening (cm): <1/1/2/3/>3, Dentures/Loose Teeth: Yes/No  
- Tongue Protrusion: Normal/Restricted

**MMP Score:** 1/2/3/4  
- Neck Movements: Normal/Restricted,

**Any growth in Head and Neck Area:** Yes/No

**Spine:** Any Deformity: Yes/No, History of Spine Surgery: Yes/No

## Investigations:

- **CBC:** Hb/WBC/Platelets:…………../…………………../……………………

- **Electrolytes:** Na/K/Cl……./………/………

- **Liver Function Tests:** Alb/Glob/AST/ALT………./………../………….../………

- **Coagulation Profile:** PT/aPTT/INR:………./…………./……………

- **Renal Function Test:** S. Creatinine/S. Urea:……………./…………..

- **ECG:**……………………………………………………………………………………………………………………………………

- **Chest Xray:**………………………………………………

- **2DECHO/Stress Test:**…………………………………………………………………………………………………………

- **PFT:**……………………………………………………………………………………………………………………………………

- **Any other Investigation like:** Sleep Study/CPET/Coronary Angiogram …………………………………

- ……………………………………………………………………………………………………………………………………………

## Speciality Referrals:

- **Cardiology** □  
- **Pulmonary Medicine** □  
- **Endocrinology** □  

- **Nephrology** □  
- **Neurology** □  
- **Haematology** □  

- **Others:**………………………….

**Reason for Referral to be documented:**………………………………………………………………………………………………………………
**Opinion from referral specialty:**

|                                                                 |                                                                 |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
|                                                                 |                                                                 |                                                                 |
|                                                                 |                                                                 |                                                                 |

**Review by Anaesthesiologist:**

Plan to Reasses: Yes/No

Fitness Given: Yes/No

ASA Grading: I/II/III/IV/V

**Special Instructions:**

|                                                                 |                                                                 |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
|                                                                 |                                                                 |                                                                 |
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