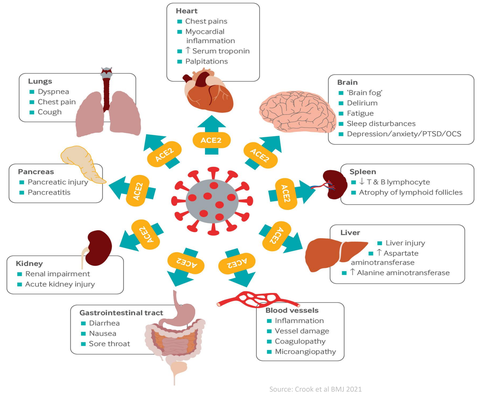
The Long Haul to Surgery: Investigation into the Burden of Long COVID on Surgical Departments

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Background

- Many patients infected with the COVID-19 virus continue to experience symptoms for weeks to months following the initial infection that are believed to be caused by the virus – thus referred to as “Long COVID”.
- Rates of Long COVID have been reported by the CDC to be as high as **1 in 5 adults** who previously tested positive for COVID-19.
- COVID-19, and potentially associated Long COVID, has been associated with increased utilization of healthcare resources.
- Symptom profile is quite broad and may include conditions that require surgery.



Source: Crook et al BMJ 2021

Methods

- ❑ Population-based electronic survey of patients who tested positive for COVID-19 at UCSDH at least 90 days prior to survey
  - ❑ Long COVID symptoms
- ❑ Additional chart review was conducted to determine if respondents had undergone a surgical or non-routine invasive procedure on or following the date of survey completion
- ❑ The burden of Long COVID on the UCSDH Surgery Department was determined through comparison of the number of surgeries performed on patients who reported having Long COVID symptoms to those on patients who did not report having symptoms
- ❑ For patients in the cohort who underwent a surgical procedure, the following were also examined:
  - ❑ Case Urgency
  - ❑ Inpatient vs Outpatient
  - ❑ ICU vs non-ICU
  - ❑ Length of Stay
  - ❑ Complication Rate
  - ❑ Surgical Service
  - ❑ Surgical Case Type

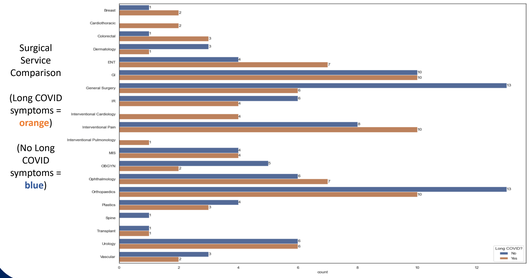


Results

Survey Results
- 999 of 9619 (10.4%) responded
- 421 (46.3%) endorsed Long COVID symptoms
- Most commonly reported symptoms included:
  - Weakness/Tiredness
  - Sleep Disturbances
  - Difficulty Thinking/Concentrating

Surgical Analysis
- 174 (17.4%) respondents underwent surgery or a non-routine invasive procedure on or following the date of surgery completion
- 85 (48.8%) of these patients had endorsed Long COVID symptoms

	Total number surgical patients	n (%) Emergent/Urgent/ Time-sensitive cases	n (%) Inpatient cases	n (%) ICU post-op destination	Length of Stay (LOS) - mean	n (%) Complications within 30 days post-op
Long COVID symptoms reported	85	37 (43.5%)	21 (24.7%)	4 (4.7%)	5.05 days	4 (4.7%)
No Long COVID symptoms reported	89	39 (43.8%)	26 (29.2%)	1 (1.1%)	2.77 days	9 (10.1%)
p-value	--	*0.97*	*0.61*	*0.20*	*0.24*	*0.25*



Discussion

- There were no statistically significant differences between groups in this analysis.
- Hospital systems are widely impacted by the COVID-19 pandemic and substantial numbers of Long COVID patients are seeking care.
- One known impact of the pandemic on Surgical Departments is later presentation of diseases such as appendicitis, however, these phenomena have not been directly connected with Long COVID.
- The results of this analysis demonstrate that Long COVID does not appear to have created a significant burden of surgical disease processes on the hospital system.
- This knowledge can help guide operational resource allocation as a result of the pandemic and its longer-term sequelae.

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