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**Introduction & Objectives:** In this study, we investigated the safety of robotic surgery during the pandemic period concerning new-acquired COVID-19 infections for both patients, assessed by follow-up telephone interview, and healthcare workers, assessed by swab tests on SARS-CoV-2.

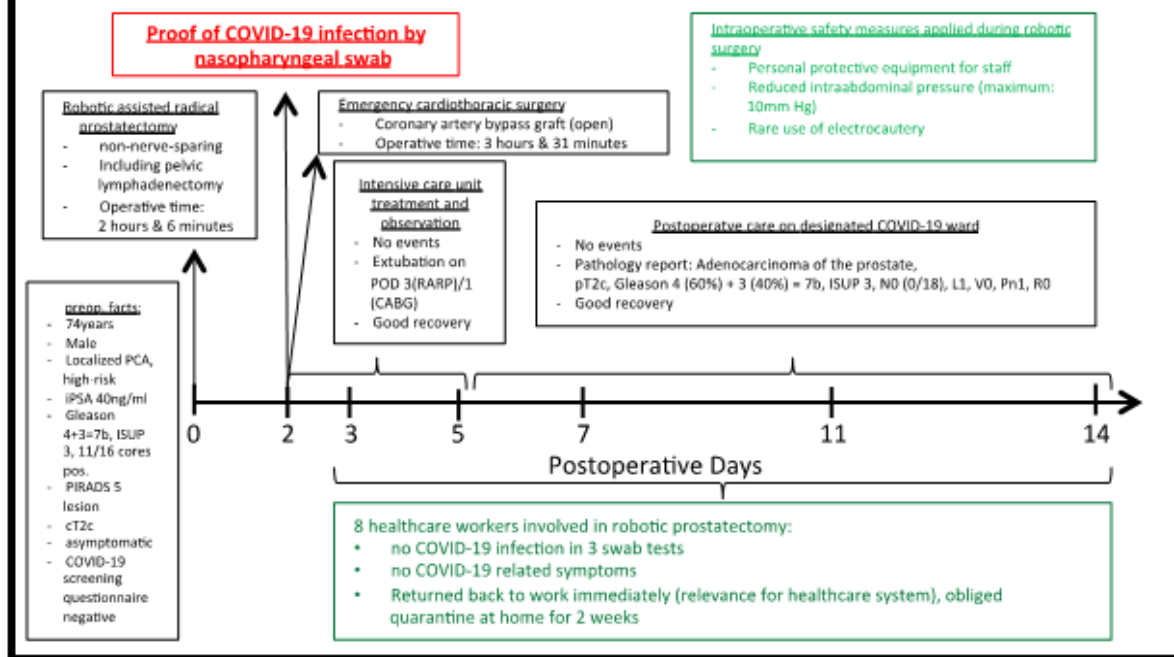
**Materials & Methods:** We performed a retrospective single-centre cohort study of patients undergoing robotic surgery in the initial 2-months period of COVID-19 focusing on safety. Patients' COVID-19 infection status was assessed by telephone follow-up at a minimum of 14 days (median: 48) after robotic surgery. All healthcare workers involved in robotic surgery including console surgeons, bedside surgeons, anesthetists, scrub nurses and anesthesia nurses were investigated for presence of SARS-CoV-2 in nasopharyngeal swabs at three different time points during the study period from 12 March to 11 May 2020.

Patient Factors	
Age, years, median (IQR)	68 (63-73)
Male gender, n (%)	53 (86.9%)
ASA score, n (%)	
1	6 (9.8%)
2	34 (55.7%)
3	21 (34.4%)
COVID-19 Risk Factors, n (%)	
0	1 (1.6%)
1	11 (18%)
2	21 (34.4%)
3	15 (24.6%)
4	9 (14.8%)
5	3 (4.9%)
6	1 (1.6%)
Surgery Data	
Type of surgery, n (%)	
Robot-assisted radical prostatectomy	37 (60.7%)
Robot-assisted partial nephrectomy	14 (23%)
Robot-assisted pyeloplasty	3 (4.9%)
Robot-assisted radical cystectomy	2 (3.3%)
Robot-assisted radical nephroureterectomy	2 (3.3%)
Robot-assisted adrenalectomy	1 (1.6%)
Robot-assisted simple prostatectomy	1 (1.6%)
Robot-assisted super-extended lymphadenectomy	1 (1.6%)
OR time, minutes, median (IQR)	171 (138-198)
Preoperative COVID-19 Screening, n (%)	
COVID-19 Screening Form	46 (75.4%)
COVID-19 Swab	21 (34.4%)
Postoperative COVID-19 Infection	
Follow-up period, days, median (IQR)	48 (28-60)
Proven COVID-19 infection, n (%)	1 (1.6%)
COVID-19 Swab Test Performed, Negative Result, n (%)	6 (9.8%)

Occupational Group	N	Male (%)	Age, range	Cumulative OR exposure time	COVID-19 infections
Urology Console Surgeons	4	4 (100%)	39-51	175 hours 2 minutes	0 (0%)
Urology Bed-Side Surgeons	8	4 (50%)	28-44	213 hours 29 minutes	0 (0%)
Anesthesists	21	12 (57%)	26-61	282 hours 8 minutes	0 (0%)
Urology Scrub Nurses	14	4 (29%)	27-59	246 hours 52 minutes	0 (0%)
Anesthesia Nurses	13	3 (23.1%)	20-59	269 hours 36 minutes	0 (0%)
All Healthcare Workers	60	27 (45%)	20-61	1187 hours 7 minutes	0 (0%)

**Results:** After 61 robotic surgeries, 1 patient (1.6%) had a COVID-19 infection. 60 healthcare workers (4 console surgeons, 8 bedside surgeons, 21 anesthesists, 13 scrub nurses and 14 anesthesia nurses) that were cumulatively exposed to 1,187 hours of robotic surgery had no COVID-19 infection. One patient with proof of SARS-CoV-2 on postoperative day two after radical prostatectomy had complete recovery without need for ventilation. After this potentially contagious robotic surgery, 8 healthcare workers with direct patient contact had no COVID-19 infection after 2 weeks and follow-up with each 3 nasopharyngeal swabs.

## Clinical course of a patient undergoing robotic prostatectomy with proof of COVID-19 infection on postoperative day two



**Conclusions:** Early clinical experience of robotic surgery during COVID-19 pandemic on 61 patients shows that robotic surgery can be safely performed for both patients and healthcare workers. In particular, there was no COVID-19 infection among 8 healthcare workers with direct contact during potentially contagious robotic surgery on a patient for whom COVID-19 infection was proven two days after surgery.