

# Are patients' fears of catching COVID-19 during an emergency hospital admission with an acute urological problem justified?—A UK epicentre experience

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## ABSTRACT

**Background** To establish the risk of catching COVID-19 as urology emergency inpatient and assess patients' fears and attitudes towards seeking help.

**Methods** A single-centre retrospective study of urological emergency admissions was conducted over a 10-week period in 2019 and compared to same period of 2020 pandemic. Also, a telephone survey was performed based on a COVID-19 fear questionnaire.

**Results** In-hospital, infection rate was 0.82% during or within 28 days of discharge with no related mortality. The majority of patients were afraid to visit A&E during the pandemic with less being afraid to visit their GPs; 64% were reluctant to seek medical input by trying self-treatment; 56% admitted intentional delay to visit the hospital. Additionally, 56% considered risk of getting COVID-19 was higher rather than leaving their condition untreated. Interestingly, the vast majority (82%) stated that they would not change approach regarding hospital visits if the same situation occurred.

**Conclusions** The risk of contracting COVID 19 while a urology inpatient in a COVID-19 epicentre was very low with no COVID-19-related mortality. Our data support that patients should be encouraged to attend rather than stay at home during future surges in the pandemic to prevent further non-COVID-19-related harm.

**Keywords** COVID-19, emergency care, public health

## Introduction

During the first wave of COVID-19, patients' anxieties around contracting the virus during an emergency hospital admission were high. The Government's message of 'stay home, protect the NHS and save lives' during the height of the pandemic also led to less patients attending hospitals.

As further COVID-19 surges are on-going, it is important for healthcare service providers to inform patients of the risk of catching COVID-19 after an emergency hospital admission. This could potentially allay patients' fears and therefore allow more timely intervention and management of emergency conditions.

The aim of our study was to establish the risk of catching COVID-19 as a urology emergency inpatient in our Trust (designated as a COVID-19 epicentre)<sup>1</sup> and to assess patients' fears and attitudes towards seeking medical help for their

acute urological problems. Our study is unique in that it looked at the risk of catching COVID-19 as an emergency urological inpatient as well as asking patients what fears they had before attending the hospital and whether this delayed their initial presentation.

## Methods

A single centre retrospective audit of all urological emergency admissions was made over a 10-week period (mid-March to end-May) in 2019 and compared to the same period

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**Table 1** Key data characteristics

|                          | 2019 <i>n</i> (%) | 2020 <i>n</i> (%)  |
|--------------------------|-------------------|--------------------|
| Key Data Characteristics |                   |                    |
| <i>n</i>                 | 187               | 122                |
| Male                     | 158               | 106                |
| Female                   | 29                | 16                 |
| Age: Mean (Range)        | 54.3 (8–97) years | 53.8 (10–98) years |
| No of days of Presenting | 2.8 (0–21) days   | 2.3 (0–28) days    |
| Complaints (Range)       |                   |                    |
| Length of stay (Range)   | 2.65 (0–38) days  | 1.76 (0–24) days   |

in 2020 during the COVID-19 pandemic. The number of patients who developed new COVID-19 symptoms while an in-patient or had positive swabs within 28 days of discharge was obtained. We performed a post-discharge telephone survey of patients based on a COVID-19 fear questionnaire (FC19-HVQ) adapted from the validated Fear of COVID-19 scale.<sup>2</sup>

## Results

Compared with 2019 ( $n = 187$ ), in 2020 ( $n = 122$ ), there was a 35% reduction in the number of patients presenting acutely to our department (Table 1). There was no difference in the mean age and gender between the two groups.

### COVID-19 swab results

Forty-three of the one hundred twenty-two (35.2%) patients were swabbed on admission due to possible symptoms of COVID-19. One patient was found to be COVID-19 positive, and 5 patients had further swabs during their admission; 1 patient who was negative on admission became positive while an inpatient. Accordingly, the overall in-hospital infection rate with COVID-19 was 0.82% (1 patient) during or within 28 days of discharge. There was no mortality (0%) related to COVID-19.

### FC19-HVQ results

From our 122 emergency admissions during COVID-19 period, 3 patients were deceased. These were non-COVID-19-related deaths: 2 from hospital acquired pneumonia (COVID-19 swab negative) and 1 from metastatic urothelial carcinoma. From the remaining 119, 7 patients had no telephone number, 6 patients had multiple admissions during the same period and 4 were nursing home residents and had dementia or were hard of hearing so were excluded. We were able to contact 50 out of the remaining 102 patients (49%) (Table 2).

The majority of patients were afraid to visit A&E or the hospital during the COVID-19 pandemic crisis. Fewer patients were afraid to visit their General Practitioners (GPs); 28% ( $n = 14$ ) of responders ignored their symptoms during the pandemic.

Furthermore, patients were reluctant to seek medical input during COVID-19 by trying to treat themselves at home with 64% ( $n = 32$ ) of them stating that they attempted to do so. There was also a degree of intentional delay to visit A&E and the hospital with 56% ( $n = 28$ ) of our patients admitting to having delayed their visit.

Additionally, 56% ( $n = 28$ ) of patients thought that the risk of getting COVID-19 was higher than leaving their condition untreated. The vast majority, 82% ( $n = 41$ ), stated that they would not change their approach regarding A&E or hospital visits if the same situation were to arise again.

## Discussion

Patient fears of catching COVID-19 reduced the numbers of patients presenting to our hospital with urological complaints. This could have reduced presentations of less urgent cases but may also have delayed presentations of more serious conditions such as testicular pain with possible torsion or renal colic with an obstructed kidney. Other European centres also saw reductions in overall urological emergency presentations during the first wave of the COVID-19 pandemic.<sup>3,4</sup>

Our results show that the risk of contracting COVID-19 after admission to the hospital for a urological emergency was only (0.82%). This is slightly lower than a surgical (1.07%)<sup>5</sup> and orthopaedic hip fracture (2.1%)<sup>6</sup> series; however, both these studies included higher risk patients. The low numbers of positive cases in our group may have been due to the low numbers being tested due a shortage of testing kits locally at the start of the pandemic, and also across the UK, with only patients with symptoms of COVID-19 being tested at the time.

During our study, only 43 (35%) patients were swabbed while inpatients as they developed COVID-19 symptoms. This has since changed and all patients are now being swabbed for COVID-19 on admission. This, coupled with more frequent testing of staff, is likely to reduce the number of cases of COVID-19 being contracted while an in-patient.

Patients were reluctant to visit the hospital or GP surgery with some attempting to self-treat. Patients should be made aware that the risk of harm to them, from not having their non-COVID-19 pathology managed in a timely manner, may be higher than the risks associated with contracting COVID-19 if they are in a low-risk category.

**Table 2** Fear of COVID-19 during hospital visit questionnaire (FC19-HVQ) and results

| Likert score (LS) | Likert Score; 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree                                     |              |              |              |              |              |
|-------------------|---|--------------|--------------|--------------|--------------|--------------|
| Question Number   |   | LS (1)       | LS (2)       | LS (3)       | LS (4)       | LS (5)       |
| 1                 | I was scared to visit A&E or the hospital during COVID-19 pandemic crisis   | N = 6 (12%)  | N = 7 (14%)  | N = 10 (20%) | N = 20 (40%) | N = 7 (14%)  |
| 2                 | I was scared to visit my GP Surgery during COVID-19 pandemic crisis   | N = 7 (14%)  | N = 13 (26%) | N = 13 (26%) | N = 14 (28%) | N = 3 (6%)   |
| 3                 | I ignored my symptoms during COVID-19 pandemic crisis   | N = 11 (22%) | N = 11 (22%) | N = 14 (28%) | N = 11 (22%) | N = 3 (6%)   |
| 4                 | I attempted to treat myself at home during COVID-19 pandemic crisis   | N = 7 (14%)  | N = 4 (8%)   | N = 7 (14%)  | N = 28 (56%) | N = 4 (8%)   |
| 5                 | I intentionally delayed my visit to A&E or the hospital during COVID-19 pandemic crisis   | N = 9 (18%)  | N = 6 (12%)  | N = 7 (14%)  | N = 22 (44%) | N = 6 (12%)  |
| 6                 | I felt the risk of contracting COVID-19 was higher than leaving my condition untreated  | N = 6 (12%)  | N = 6 (12%)  | N = 10 (20%) | N = 17 (34%) | N = 11 (22%) |
| 7                 | If I had the same symptoms again, I would follow the same approach regarding A&E or hospital visits during the COVID-19 pandemic. | N = 1 (2%)   | N = 2 (4%)   | N = 6 (12%)  | N = 23 (46%) | N = 18 (36%) |

Study limitations include relatively small sample size, low survey response rate (50%) and the use of an adapted non-validated questionnaire. There was also a low number of COVID-19 swabs performed on symptomatic patients only during their in-patient stay and for 28 days post-discharge. As such, there is some risk that asymptomatic COVID-19 patient was missed.

## Conclusion

The risk of contracting COVID 19 while a urology in patient in a COVID-19 epicentre was very low with no COVID-19-related mortality. Our data support the message that patients with urological emergencies should be educated and encouraged to attend hospital, rather than staying at home, during future surges in the current pandemic. This is to prevent further non-COVID-19-related harm from delayed presentations, undiagnosed pathologies and self-treatment approaches.

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