

Annexure 1

Table S1. Characteristics of participants who had anti-S IgG antibodies, by anti-NC IgG status.

Variables	Anti-NC IgG absent	Anti-NC IgG present
N	265	29
Age (years), median (IQR)	37.1 (31.6, 44.9)	35.0 (26.7, 39.8)
Nationality		
Indian	29.1%	24.1%
Nepali	35.8%	44.8%
Others	34.7%	31.0%
Missing	0.4%	0.0%
Religion		
Hindu	10.2%	3.4%
Muslim	59.6%	62.1%
Others	27.5%	27.6%
Missing	2.6%	6.9%
Occupation		
Construction	37.0%	20.7%
Others	63.0%	79.3%
Travel history (past 2 weeks)		
No	95%	96.5%
Yes	1.5%	3.5%
Missing	3.5%	0%
Number of handwashes (past 24 hours) median (IQR)	10.0 (4.0,18.0)	10.0 (7.0,16.0)
Vaccine group		
Not mRNA	10.6%	37.9%
Moderna	48.3%	34.5%
Pfizer	40.4%	27.6%
None	0.8%	0.0%
Interval between two doses (days), median (IQR)	28.0 (21.0, 28.0)	28.0 (22.0, 30.0)
Duration between sample collection and last vaccine dose (days), median (IQR)	130.0 (72.0, 173.0)	117.0 (88.0, 147.0)
IgG spike status		
Absent	1.1%	0.0%
Present	94.7%	100.0%
Test not done (Sample Rejected)	4.2%	0.0%
Anti-S IgG antibody titre (AU/mL), median (IQR)	8879.3 (3923.0, 19846.5)	10698.8 (3377.5, 21324.1)

Table S2. Hazard rate and survival time for Non-mRNA, Moderna and Pfizer vaccines.

Vaccine type	Time at risk (months)	Incidence rate	Number of subjects	Time (in months) at which 25%, 50%, and 75% of subjects dropped into the lowest Anti-S IgG quartile		
				25%	50%	75%
Non-mRNA	101.13	0.198	37	2.2	3.53	4.5
Moderna	566.27	0.035	139	6.37	not reached	not reached
Pfizer	577.47	0.050	118	6.33	7.63	8.47

Table S3. Cox proportional hazard regression model results.

Variables	Hazard ratio	p-value	95% Confidence Interval
Moderna	0.090	0.000	0.042-0.190
Pfizer	0.121	0.000	0.059- 0.249
Age (centered)	0.994	0.965	0.965-1.024
IgGNC status	0.367	0.025	0.152-0.881
Number of subjects	281		
Number of failures	67		
Total time at risk	1203.1		
LR chi2(4)	41.33	0.000	

Annexure 2: Protocols for COVID-19 Among Labour in Qatar

Environmental sampling of COVID-19

1. Sample location information (complete new table for each sampling collection):	
Identification number	
Date sample collected (DD/MM/YYYY)	(DD/MM/YYYY)___/___/___ Time:
Room temperature at time of sampling (°C)	
Room humidity at time of sampling (%)	
Location of room in which sample was collected	<input type="checkbox"/> Participant's bedroom <input type="checkbox"/> Participant's bathroom <input type="checkbox"/> Entry routing <input type="checkbox"/> Other
When was the room last cleaned?	(DD/MM/YYYY)___/___/___ Time:
When was the room last disinfected?	(DD/MM/YYYY)___/___/___ Time:

2. Sampling information :	
If yes, were multiple swabs taken?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
What storage medium was used?	<input type="checkbox"/> Viral transport medium <input type="checkbox"/> Tryzol <input type="checkbox"/> RNAlater <input type="checkbox"/> Other:

3. Storage and transport information :	
When were the samples stored at the laboratory?	(DD/MM/YYYY)___/___/___ Time:

How were the samples stored at the laboratory?	<input type="checkbox"/> 4°C <input type="checkbox"/> -20°C <input type="checkbox"/> -80°C <input type="checkbox"/> Other:
When were the samples transported to the laboratory?	(DD/MM/YYYY)___/___/_____ Time:
How were the samples transported to the laboratory?	<input type="checkbox"/> 4°C <input type="checkbox"/> -20°C <input type="checkbox"/> -80°C <input type="checkbox"/> Other:

Epidemiological and clinical information

Patient identification number	
1. Current Status	<input type="checkbox"/> Alive <input type="checkbox"/> Dead
2. Data Collector Information	
Name of data collector	
Data collector Institution	
Data collector telephone number	
Mobile number	
Email	
Form completion date (DD/MM/YYYY) ____/____/____	
Date of interview with informant (DD/MM/YYYY) ____/____/____	
3. COVID-19 patient information	
First name	
Surname	
Sex <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Not known	
Date of birth (DD/MM/YYYY) ____/____/____	
Telephone (mobile) number	
Country of residence	
Nationality	
Ethnicity (optional)	
Responsible Health Centre	
Nursery/School/College if appropriate Work/ Stay home etc	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Have you travelled within the last 14 days domestically?	If Yes, dates of travel (DD/MM/YYYY): ____/____/____ to ____/____/____
	Regions: Cities visited: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Have you travelled within the last 14 days internationally?	If Yes, dates of travel (DD/MM/YYYY): ____/____/____ to ____/____/____
	Countries visited: Cities visited: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
In the past 14 days, have you had contact with a anyone with suspect or confirmed COVID-19 infection?	If Yes, dates of last contact (DD/MM/YYYY): ____/____/____

4a. Primary case symptoms from onset of illness	
Date of first symptom onset* (DD/MM/YYYY)	___/___/___ <input type="checkbox"/> Asymptomatic <input type="checkbox"/> Unknown
Fever ($\geq 38^{\circ}\text{C}$) or history of fever*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify maximum temperature from onset of illness:
Date of first health facility visit (including traditional care)* (DD/MM/YYYY)	___/___/___ <input type="checkbox"/> NA <input type="checkbox"/> Unknown
Total number of visits to health facilities since onset of illness	
Total number of health facilities visited since onset of illness	<input type="checkbox"/> NA <input type="checkbox"/> Unknown Specify:
4b. Respiratory symptoms	
Sore throat*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, date (DD/MM/YYYY): _ / _ / _
Cough*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, date (DD/MM/YYYY): _ / _ / _
Runny nose*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Shortness of breath*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, date (DD/MM/YYYY): _ / _ / _
4c. Other symptoms	
Chills	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Nausea	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Diarrhoea	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Headache	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Neurological signs If Yes, specify	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Rash	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Conjunctivitis	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Muscle ache	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Joint ache	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Loss of appetite	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Nose bleed	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Fatigue	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
General malaise	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Seizures	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Altered consciousness	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Other symptoms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:

5. Primary case pre-existing condition(s)	
Obesity	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Cancer	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Diabetes	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
HIV/other immune deficiency	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Heart disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Asthma (requiring medication)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Chronic lung disease (non-asthma)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Chronic liver disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Chronic haematological disorder	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify trimester:
Pregnancy	<input type="checkbox"/> First <input type="checkbox"/> Second <input type="checkbox"/> Third <input type="checkbox"/> NA Estimated delivery date(DD/MM/YYYY) <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></div> </div>
Chronic kidney disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Chronic neurological impairment/disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Organ or bone marrow recipient	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Other pre-existing condition(s)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify: