



Pandemic Update

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Dr. O.C.Abraham
Professor

General Medicine and Infectious Diseases
Christian Medical College Vellore

COVID-19 & HCW

COVID-19 & HCW: China

- 4.4% (3387 out of 77,262) of patients
- 23 (0.68%) died
- **None of the 42,600 relocated to Hubei province developed infection**

COVID-19 & HCW: US

N=9282 (19% of reported cases)

Only healthcare exposure 55%

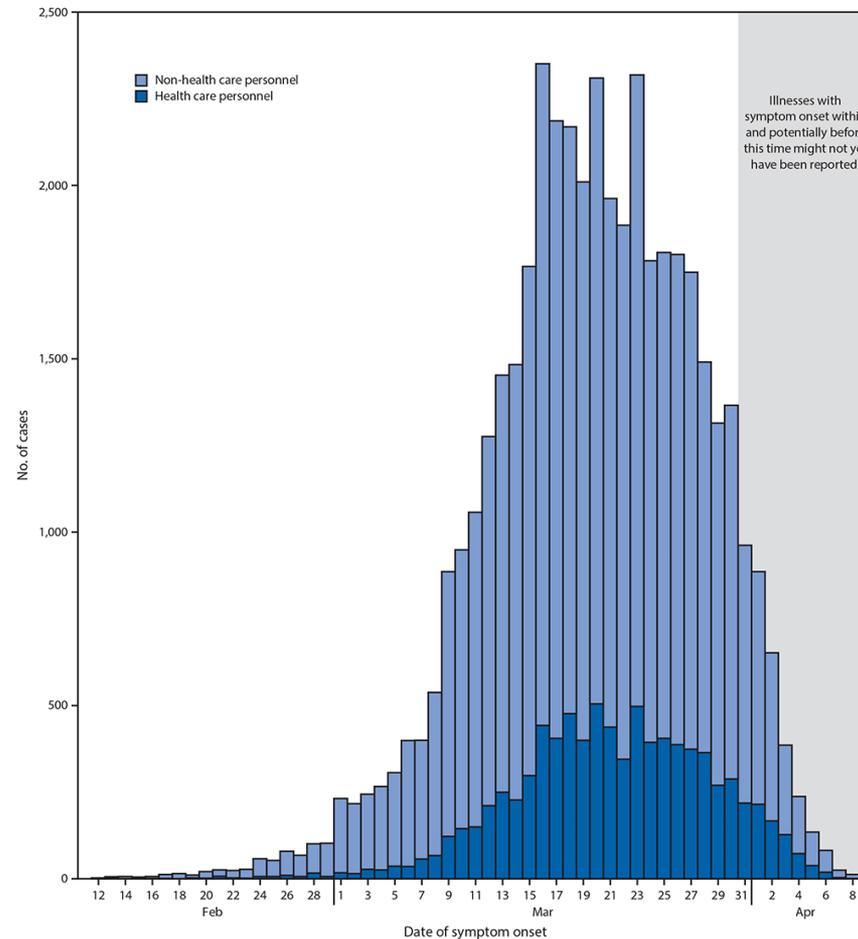


TABLE 2. Hospitalizations,* intensive care unit (ICU) admissions,† and deaths,§ by age group among health care personnel with COVID-19 — United States, February 12–April 9, 2020

Age group¶ (yrs) (no. of cases)	Outcome, no. (%)**		
	Hospitalization††	ICU admission	Death
16–44 (4,898)	260 (5.3–6.4)	44 (0.9–2.2)	6 (0.1–0.3)
45–54 (1,919)	178 (9.3–11.1)	51 (2.7–6.3)	3 (0.2–0.3)
55–64 (1,620)	188 (11.6–13.8)	54 (3.3–7.5)	8 (0.5–1.0)
≥65 (508)	97 (19.1–22.3)	35 (6.9–16.0)	10 (2.0–4.2)
Total (8,945)	723 (8.1–9.7)	184 (2.1–4.9)	27 (0.3–0.6)

Italy: Cases & Mortality Among HCW

Age group	Cases (N)	Deaths (N)	CFR (%)
18 - 29	1622	0	0.00
30 - 39	2857	2	0.10
40 - 49	4782	4	0.10
50 - 59	5757	16	0.30
60 - 69	1840	26	1.40
70 - 79	95	12	12.60
TOTAL	16,953	60	0.40

Table. Number of Nasopharyngeal Swabs in Exposed Health Care Workers, by Type of Procedure, Day After Last Exposure, and Type of Mask*

Type of AGP (n = 41 HCWs)	PPE	Timing of First Swab From Date of Last Exposure				Timing of Second Swab From Date of Last Exposure
		0-14 days	15-21 days	22-28 days	29-35 days	
Endotracheal intubation (n = 10)		4	6	2	0	25
Extubation (n = 2)		0	0	0	0	0
NIV (ICU/HDU) (n = 25)		4	4	4	0	4
Other† (n = 4)		0	0	0	0	0

- 41 HCW exposed
- 85% used surgical masks
- None infected

AGP = aerosol-generating procedure; PPE = personal protective equipment; NIV = noninvasive ventilation; ICU = intensive care unit; HCW = health care worker; HDU = high-dependency unit.
 * All swabs were negative for SARS-CoV-2 on polymerase chain reaction assay.
 † Oral suctioning in an open circuit or exposure to aerosols in an open circuit.

Risk of nosocomial transmission of coronavirus disease 2019: an experience in a general ward setting in Hong Kong

S.C.-Y. Wong ^{a, 1}, R.T.-S. Kwong ^{b, 1}, T.C. Wu ^b, J.W.M. Chan ^b, M.Y. Chu ^b, S.Y. Lee ^c, H.Y. Wong ^c, D.C. Lung ^{a, c, 2} 

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Nosocomial Transmission in General Ward, Hong Kong

- COVID-19 patient had 35-h stay in an open cubicle in a general ward
- **Did not result in any 2° nosocomial infection** in any contacts (**71 staff**) 37 days after exposure to index case
- Vigilance with basic infection control measures, including wearing of surgical masks, hand hygiene & environmental hygiene

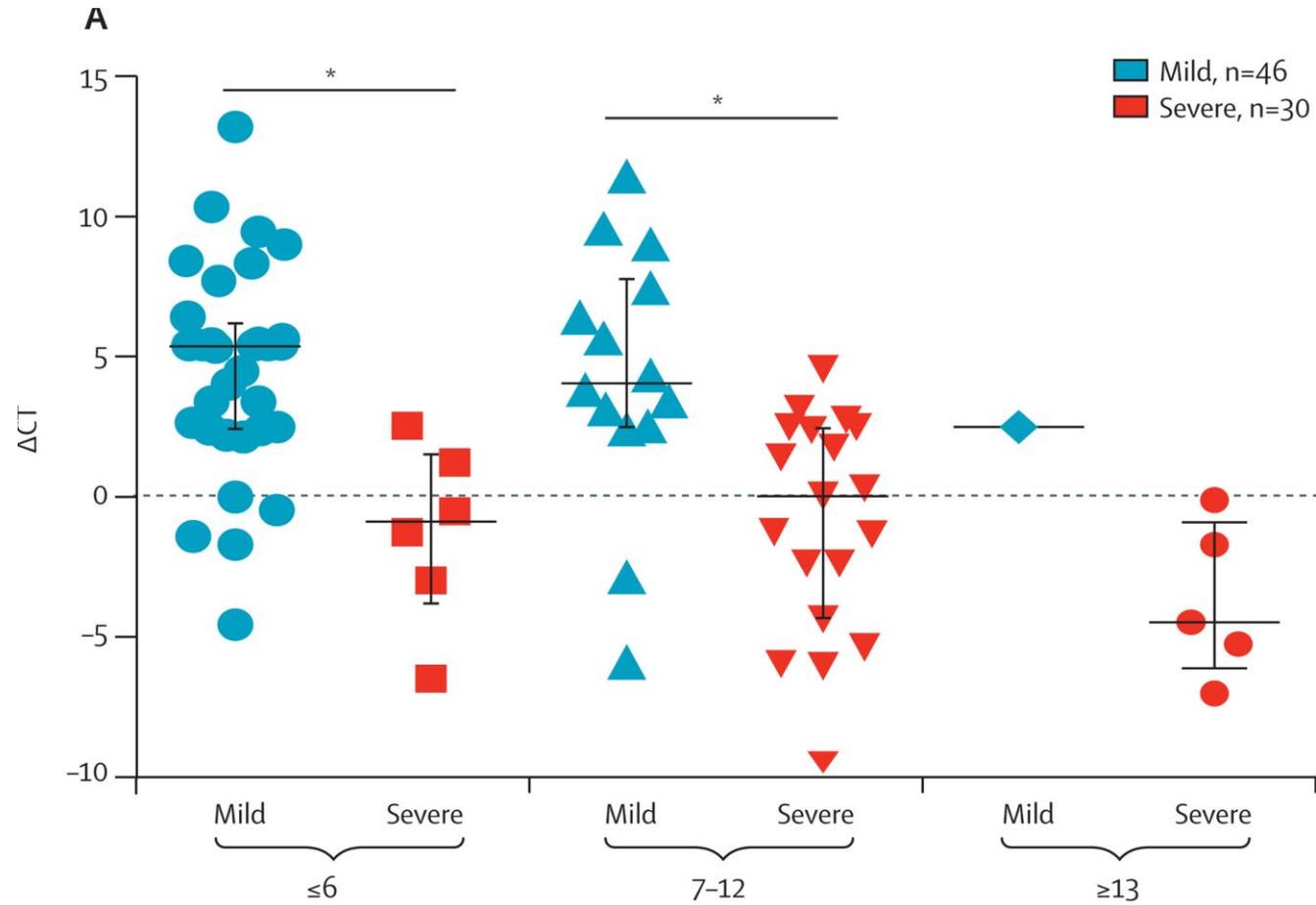
Questions

1. Does exposure to a higher inoculum (dose) lead to more severe disease?

“The relationship between initial viral dose and severity remains to be seen”

1. What is the relationship between viral load & disease severity?

SARS-CoV-2 Viral Load & Disease severity



CONCLUSIONS

- Absolute risk of mortality very low
- Diagnosis:
 - RT-PCR for confirming diagnosis
 - HRCT thorax non-specific
- HCW infected during COVID-19 pandemic
- Adverse outcomes lower than general population
- Adherence to standard IPC prevents HCW infections