

1. Respiratory exposure to a COVID patient anywhere within a 4-bedded bay carries significant risk toward nosocomial infections whereas non-respiratory exposure required bed distance  $\leq 2.5m$
2. Music/singing events, attending a fitness center and drinking/eating at a bar carry a higher risk of COVID acquisition than supermarkets, travel by public transport, dining at restaurants and private social events with few participants
3. A 4th dose of mRNA vaccine was associated with slightly improved humoral response among patients with a weak response after 3 doses.
4. Two doses of mRNA vaccine were 93% effective against adolescent hospitalization for COVID-19, a case-control [study](#) at 19 pediatric hospitals in 16 states demonstrated
5. Ciclesonide (inhaled steroid) did not reduce the time to alleviation of all COVID-19–related symptoms. However, patients who were treated with Ciclesonide had fewer subsequent emergency department visits or hospital admissions
6. mRNA vaccination did not increase the risk of MI, PE, CVA in individuals 75 years or older.
7. history of VTE, elevated D-Dimer and Elevated CRP are risk factors for post discharge thrombosis after COVID hospitalization
8. Neurological Cost of COVID-19 - review
9. Median SARS-CoV-2 cycle threshold values were highest among individuals receiving 2 vaccine doses, corresponding to lower viral shedding and possibly lower transmissibility after vaccination
10. Omicron variant is associated with substantial ability to evade immunity from prior infection with 25% relative risk of re-infection, compared to 12% with beta and 9% with delta.

#### **SHEA - 11/22/2021 - COVID nosocomial transmission dynamics**

- Of 153 patients: 65 were COVID-19 patients (45 healthcare-associated).
- Exposure to a COVID-19 patient with respiratory symptoms was associated with healthcare-associated infection observed for exposure to a respiratory patient for >1 day compared to 1 day from 2.04 (95% CI 0.99-4.22) to 2.3
- Respiratory exposure anywhere within a 4-bedded bay was a risk whereas non-respiratory exposure required bed distance  $\leq 2.5m$
- [https://www.cambridge.org/core/services/aop-cambridge-core/content/view/DCB63C4CFDC72C46546FC876AFEED6C8/S0899823X21004839a.pdf/covid19\\_nosocomial\\_transmission\\_dynamics](https://www.cambridge.org/core/services/aop-cambridge-core/content/view/DCB63C4CFDC72C46546FC876AFEED6C8/S0899823X21004839a.pdf/covid19_nosocomial_transmission_dynamics)

#### **SHEA - 11/2021 - Societal activities associated with COVID**

- Contact most often took place in the household or work place.
- Community determinants included:
  - events with singing (OR=2.1, 95% CI:1.1-4.1),
  - attending fitness center (OR=1.8, 95% CI:1.1-2.8) and
  - consumption of alcohol in a bar (OR=10, 95% CI:1.5-65).
- Other community exposures appeared not to be associated with infection, these included shopping at supermarket
- <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/27C3C38869327E22A65A425294>

#### **JAMA - 11/24/2021 - Assessment of 4 doses of mRNA vaccine in solid organ transplanted pts.**

- In this case series study, our findings were similar to those of the study by Alejo et al,<sup>5</sup> in which a fourth dose of mRNA vaccine was associated with a higher neutralizing antibody response after 3 doses. Neutralizing antibody titers and cellular response were low in both groups. In a study<sup>6</sup> of 1309 BAU/mL [range, 457-7605 BAU/mL]) and NAb titers were greater than 64 IU/mL (median 128 [range, 64-6000 IU/mL]). The neutralizing antibody response to the mRNA vaccine was 542 SFUs per 10<sup>6</sup> PBMCs (range, 0-1669 SFUs per 10<sup>6</sup> PBMCs) (Jacques Izopet, Pharm D, PhD, et al)
- <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2786552>
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#### **JAMA - 11/23/2021 - mRNA vaccine effectiveness in immunized adolescents.**

- Two doses of the BNT162b2 (Pfizer-BioNTech) vaccine were 93% effective against adolescent hospitalization

- <https://jamanetwork.com/journals/jama/fullarticle/2786490>

#### **JAMA - 11/22/2021 - Ciclesonide effectiveness and COVID**

- A total of 413 participants were screened and 400 (96.9%) were enrolled and randomized (197 [49.3%] in the ciclesonide group, 172 in the placebo group); 172 were Hawaiian or other Pacific Islander, 345 [86.3%] White, and 1 multiracial individuals [0.3%]; 172 Hispanic or Latin American, 172 Black, and 172 Asian or Pacific Islander
- The median time to alleviation of all COVID-19–related symptoms was 19.0 days (95% CI, 14.0-21.0) in the ciclesonide group and 21.0 days (95% CI, 16.0-26.0) in the placebo group
- Participants who were treated with ciclesonide had fewer subsequent emergency department visits or hospital admissions
- ciclesonide did not achieve the primary efficacy end point of reduced time to alleviation of all COVID-19–related symptoms
- <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2786012>
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#### **JAMA - 11/22/2021 - risk of MI, CVA, PE in pts > 75 yo after mRNA vaccination**

- In this nationwide study involving persons aged 75 years or older in France, no increase in the incidence of acute myocardial infarction, stroke, or pulmonary embolism was observed
- <https://jamanetwork.com/journals/jama/fullarticle/2786667>

#### **JAMA - 11/22/2021 - Risk factors leading to post-discharge thrombosis in pts with COVID**

- In this cohort study of 2832 adult patients hospitalized with COVID-19, the mean (SD) age was 63.4 (16.7) years
- Thirty-six patients (1.3%) had postdischarge venous thromboembolic events (16 pulmonary embolism, 18 deep vein thrombosis)
- Fifteen (0.5%) postdischarge arterial thromboembolic events were observed (1 transient ischemic attack and 14 stroke)
- There was no change in the risk of arterial thromboembolism with time (Mann-Kendall trend test,  $P = .37$ ), with a median follow-up of 10.5 days
- Patients with a history of
  - venous thromboembolism (odds ratio [OR], 3.24; 95% CI, 1.34-7.86),
  - peak dimerized plasmin fragment D (D-dimer) level greater than 3  $\mu\text{g/mL}$  (OR, 3.76; 95% CI, 1.86-7.57),
  - predischage C-reactive protein level greater than 10 mg/dL (OR, 3.02; 95% CI, 1.45-6.29) were more likely to have postdischarge thromboembolic events
- Prescriptions for therapeutic anticoagulation at discharge were associated with reduced incidence of venous thromboembolism
- <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2786413>

#### **Nature Reviews - 11/18/2021 - Neurological cost of COVID - A Review**

- accumulating evidence on neurological sequelae in patients with COVID-19 is a cause for concern. Without proper management, these sequelae could have long-term implications for patients' quality of life
- Moreover, the continuation of neurological symptoms in long COVID could overwhelm already fractured health systems
- <https://www.nature.com/articles/s41582-021-00593-7>

#### **OFID - 11/18/2021 - SARS-CoV2 shedding decreased after COVID vaccination**

- Among 880 healthcare workers with a positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) test, the median duration of viral shedding was significantly shorter in vaccinated individuals
- Median SARS-CoV-2 cycle threshold values were highest among individuals receiving 2 vaccine doses, corresponding to the lowest viral load
- Vaccination might lead to lower transmissibility of SARS-CoV-2
- <https://academic.oup.com/ofid/article/8/11/ofab526/6425697>

#### **MedRxiv - 11/2021 - Omicron and increased risk of re-infection**

- Population-level evidence suggests that the Omicron variant is associated with substantial ability to evade immunity
- This has significant implications for public health planning, particularly in countries like South Africa with high rates of immunity to SARS-CoV-2
- Understanding the implications of Omicron on protection against severe disease and death is critical
- <https://www.medrxiv.org/content/10.1101/2021.11.11.21266068v2.full.pdf>