## Neonatal Intensive Care Unit (NICU) Aerosol Generating Procedure (AGP) Guidance

Follow infection prevention best practices for all patients: universal masking, hand hygiene, respiratory etiquette, standard precautions, cleaning and disinfection.

**CDC defined AGP's**: Commonly performed medical procedures that are often considered AGPs, or that might create uncontrolled respiratory secretions, include:

• Open suctioning of airways, sputum induction, cardiopulmonary resuscitation, endotracheal intubation and extubation, non-invasive ventilation (e.g., BiPAP, CPAP), bronchoscopy, manual bag ventilation (without bag/mask valve)

Not Considered an AGP: High flow nasal cannula & Nebulizer therapy

Neonate: PUI <sup>1</sup> or COVID- 19 Positive <sup>2</sup>	Exposure to COVID- 19 positive person <sup>3</sup>	New clinical concerns <sup>4</sup>	AGP – PPE/Isolation <sup>5</sup>
Yes	NA	NA	Follow airborne/contact/eye protection isolation. Prefer incubator and negative pressure room if available.
No	NA	Yes	
No	Yes	No	Standard precaution with universal mask unless isolation is required for another infection.  Prefer incubator.
No	No	No	

- 1. Neonate PUI: Neonate exposed to COVID positive person and or displaying potential signs and symptoms consistent with COVID-19 in the neonate.
- 2. <u>Neonate COVID-19 Positive:</u> Neonate has a positive laboratory test.
- 3. Exposure to COVID-19 positive person: Neonate has been in close contact (within <6ft and over 15 minutes) with COVID-19 positive (symptomatic or asymptomatic) laboratory-confirmed by test. This includes skin to skin, parent not consistently wearing mask in the patient care area/room and other high-risk activities where parents are not following strict IP guidance.
- 4. <u>New clinical concerns:</u> Unexplained fever or unexplained need for increased respiratory support.
- 5. <a href="PPE/Isolation:">PPE/Isolation:</a> Refer to the <a href="Transmission-Based Isolation Reference Grid">Transmission-Based Isolation Reference Grid</a>



## Resources

- Mazela, J. (2016). Aerosolization and nebulization. Manual of neonatal respiratory care (pp. 505-521). Springer International Publishing. <a href="https://doi.org/10.1007/978-3-319-39839-6-61">https://doi.org/10.1007/978-3-319-39839-6-61</a>
- DiLorenzo, M. A., O'Connor, S. K., Ezekwesili, C., Sampath, S., Zhao, M., Yarrington, C., & Pierre, C. (2021). COVID-19 guidelines for pregnant women and new mothers: A systematic evidence review. *International Journal of Gynecology and Obstetrics*, 153(3), 373-382. https://doi.org/10.1002/ijgo.13668
- Shalish, W., Lakshminrusimha, S., Manzoni, P., Keszler, M., & Sant'Anna, G. M. (2020). COVID-19 and neonatal respiratory care: Current evidence and practical approach. American Journal of Perinatology, 37(8), 780-791. https://doi.org/10.1055/s-0040-1710522
- Narang, K., Enninga, E. A. L., Gunaratne, M. D. S. K., Ibirogba, E. R., Trad, A. T. A., Elrefaei, A., Theiler, R. N., Ruano, R., Szymanski, L. M., Chakraborty, R., & Garovic, V. D. (2020). SARS-CoV-2 infection and COVID-19 during pregnancy: A multidisciplinary review. Mayo Clinic Proceedings, 95(8), 1750-1765. <a href="https://doi.org/10.1016/j.mayocp.2020.05.011">https://doi.org/10.1016/j.mayocp.2020.05.011</a>
- Mazela, J., & Polin, R. A. (2010;2011;). Aerosol delivery to ventilated newborn infants: Historical challenges and new directions. European Journal of Pediatrics, 170(4), 433-444. https://doi.org/10.1007/s00431-010-1292-6
- Anand, P., Yadav, A., Debata, P., Bachani, S., Gupta, N., & Gera, R. (2020;2021;). Clinical profile, viral load, management and outcome of neonates born to COVID 19 positive mothers: A tertiary care centre experience from india. European Journal of Pediatrics, 180(2), 547-559. https://doi.org/10.1007/s00431-020-03800-7
- Deprest, J., Choolani, M., Chervenak, F., Farmer, D., Lagrou, K., Lopriore, E., McCullough, L., Olutoye, O., Simpson, L., Van Mieghem, T., & Ryan, G. (2020). Fetal diagnosis and therapy during the COVID-19 pandemic: Guidance on behalf of the international fetal medicine and surgery society. Fetal Diagnosis and Therapy, 47(9), 689.
- Mimouni, F., Lakshminrusimha, S., Pearlman, S. A., Raju, T., Gallagher, P. G., & Mendlovic, J. (2020). Perinatal aspects on the covid-19 pandemic: A practical resource for perinatal-neonatal specialists. *Journal of Perinatology*, 40(5), 820-826. https://doi.org/10.1038/s41372-020-0665-6
- Information for Pediatric Healthcare Providers, August 25, 2021 <a href="https://www.cdc.gov/coronavirus/2019-ncov/hcp/pediatric-hcp.html#symptoms-severity">https://www.cdc.gov/coronavirus/2019-ncov/hcp/pediatric-hcp.html#symptoms-severity</a>
- Ralston, SL, Lieberthal, AS, Meissner, HC, et al. (2014)Clinical Practice Guideline: The Diagnosis, Management, and Prevention of Bronchiolitis. Pediatrics;134;e1474; originally published online October 27, 2014;
- CDC Symptom-Based Strategy to Discontinue Isolation for Persons with COVID-19, May 3, 2020 https://www.cdc.gov/coronavirus/2019-ncov/community/strategy-discontinue-isolation.html
- AAH Personal Protective Equipment Resource Guide for PPE. <a href="https://www.advocatehealth.com/covid-19-info/assets/documents/ppe-resource-guide.pdf">https://www.advocatehealth.com/covid-19-info/assets/documents/ppe-resource-guide.pdf</a>
- AAH Aerosol Generating Procedure (AGP) Document <a href="https://www.advocatehealth.com/covid-19-info/">https://www.advocatehealth.com/covid-19-info/</a> assets/documents/aerosol-generating-procedures.pdf
- PPE signage: Droplet/Contact Precautions (ED/Hospital) <a href="https://www.advocatehealth.com/covid-19-info/assets/documents/ed-hospital-signage/droplet-and-contact-precautions\_ppe\_sign\_update-4.27.2020.pdf">https://www.advocatehealth.com/covid-19-info/assets/documents/ed-hospital-signage/droplet-and-contact-precautions\_ppe\_sign\_update-4.27.2020.pdf</a>
- PPE signage: Airborne/Contact Precautions (ED/Hospital) <a href="https://www.advocatehealth.com/covid-19-info/assets/documents/ed-hospital-signage/airborne-and-contact-precautions">https://www.advocatehealth.com/covid-19-info/assets/documents/ed-hospital-signage/airborne-and-contact-precautions</a> ppe sign update-4.27.2020.pdf
- CDC Discontinuation of Transmission-Based Precautions for patients with COVID-19: Update May 2, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-hospitalized-patients.html
- Interim Infection Prevention and Control recommendations for patients with suspected or confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings. Update Feb 16, 2021. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html