Inhaled Nitric Oxide

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Application:	
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Disclaimer

Highmark Health Options medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

POLICY STATEMENT

Inhaled nitric oxide is a natural vasodilator and has been studied for the treatment of a variety of types of respiratory failure. Most commonly, it is used as an adjunct treatment for neonates with hypoxic respiratory failure to improve oxygenation and reduce the need for invasive extracorporeal membrane oxygenation (ECMO). It is also proposed as a treatment for premature infants, critically ill children and adults with respiratory failure, as well as in the postoperative management of children undergoing repair of congenital heart disease and individuals after lung transplantation to prevent or reduce reperfusion injury.

DEFINITIONS

Highmark Health Options (HHO) – Managed care organization serving vulnerable populations that have complex needs and qualify for Medicaid. Highmark Health Options members include individuals and families with low income, expecting mothers, children, and people with disabilities. Members pay nothing to very little for their health coverage. Highmark Health Options currently serves Delaware Medicaid: Delaware Healthy Children Program (DHCP) and Diamond State Health Plan and Health Plan Plus members.

Nitric Oxide – An inhaled gas that works by relaxing smooth muscle to widen (dilate) blood vessels, especially in the lungs.

POLICY POSITION

Inhaled nitric oxide may be considered medically necessary as a component of treatment of hypoxic respiratory failure in neonates born at more than 34 weeks of gestation.

Inhaled nitric oxide may be considered medically necessary for post-operative management of pulmonary hypertensive crisis in infants and children with congenital heart disease.

Inhaled nitric oxide not meeting the criteria as indicated in this policy is considered experimental/investigational, and therefore noncovered, because the safety and/or effectiveness cannot

be established by available published peer-reviewed literature, including, but not limited to ANY ONE of the following indications:

- Treatment of premature neonates born at less than or equal to 34 weeks of gestation with hypoxic respiratory failure; or
- Treatment of adults and children with acute hypoxemic respiratory failure; or
- In lung transplantation, during and/or after graft reperfusion.

PROCEDURE CODES

Code	Description
93463	Pharmacologic Agent Administration (e.g., Inhaled Nitric Oxide, Intravenous Infusion Of Nitroprusside, Dobutatmine, Milrinone, Or Other Agent) Including Assessing Hemodynamic Measurements Before, During, After And Repeat Pharmacologic Agent Administration, When Performed (list Separately In Addition to Code For Primary Procedure).

ELIGIBLE DIAGNOSIS CODES

I16.9	P22.0	P28.5		

NONCOVERED SERVICES

Experimental/investigational (E/I) services are not covered regardless of place of service.

References

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Bearl D, Dodd D, Thurm C, Hall M, Soslow J, et al. Practice variation, costs and outcomes associated with the use of inhaled nitric oxide in pediatric heart transplant recipients. Pediatr Cardiol. 2019;40:650–657.

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Chandrasekharan P, Lackshminrusimha S, Abham S. When to say no to inhaled nitric oxide in neonates? Sci Dir. 2021.

POLICY UPDATE HISTORY

<Date>	<Event>