PROPRANOLOL TREATMENT FOR INFANTILE HEMANGIOMAS: INPATIENT PROTOCOL

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INSTRUCTIONS FOR USE

This Medical Management Guideline provides assistance in interpreting UnitedHealthcare benefit plans. When deciding coverage, the member specific benefit plan document must be referenced. The terms of the member specific benefit plan document [e.g., Evidence of Coverage (EOC) and Schedule of Benefits (SOB)] may differ greatly from the standard benefit plan upon which this Medical Management Guideline is based. In the event of a conflict, the member specific benefit plan document supersedes this Medical Management Guideline. All reviewers must first identify member eligibility, any federal or state regulatory requirements, and the member specific benefit plan coverage prior to use of this Medical Management Guideline. Other Policies and Guidelines may apply. UnitedHealthcare reserves the right, in its sole discretion, to modify its Policies and Guidelines as necessary. This Medical Management Guideline is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the MCG™ Care Guidelines, to assist us in administering health benefits. The MCG™ Care Guidelines are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Member benefit coverage and limitations may vary based on the member’s benefit plan Health Plan coverage provided by or through UnitedHealthcare of California, UnitedHealthcare Benefits Plan of California, UnitedHealthcare of Oklahoma, Inc., UnitedHealthcare of Oregon, Inc., UnitedHealthcare Benefits of Texas, Inc., or UnitedHealthcare of Washington, Inc.

BENEFIT CONSIDERATIONS

Essential Health Benefits for Individual and Small Group

For plan years beginning on or after January 1, 2014, the Affordable Care Act of 2010 (ACA) requires fully insured non-grandfathered individual and small group plans (inside and outside of Exchanges) to provide coverage for ten categories of Essential Health Benefits (“EHBs”). Large group plans (both self-funded and fully insured), and small group ASO plans, are not subject to the requirement to offer coverage for EHBs. However, if such plans choose to provide coverage for benefits which are deemed EHBs, the ACA requires all dollar limits on those benefits to be removed on all Grandfathered and Non-Grandfathered plans. The determination of which benefits constitute EHBs is made on a state by state basis. As such, when using this guideline, it is important to refer to the member specific benefit plan document to determine benefit coverage.

UTILIZATION MANAGEMENT GUIDING PRINCIPLES

Introduction

This clinical guideline addresses the use of oral propranolol for the treatment of Infantile Hemangiomas (IH) and the need for up to a two day inpatient stay to monitor certain patients for heart rate, blood pressure and glycemic control. However, the mechanism of action of propranolol on IH is yet to be clearly defined. Some of the proposed hypotheses include vasoconstriction, decreased renin production, inhibition of angiogenesis, and stimulation of apoptosis.

- Oral propranolol is proven for the treatment of infantile hemangiomas (IH).
• The physicians and facility providing care must follow a written protocol.
• A two day inpatient length of stay in a licensed acute care hospital is medically necessary for the treatment of patients 2 months or younger:
  o Medical management is highly individualized and treatment with oral propranolol is considered in the presence of ulceration, impairment, of a vital function, (ocular compromise or airway obstruction), or risk of permanent disfigurement.
  o Newborns (up 2 months or age) may be admitted to an inpatient setting for 48 hours with oral propranolol.
  o Children over 2 months of age with medical problems that require closer monitoring when initiating propranolol (e.g., SGA, prematurity requiring apnea monitoring, cardiac disease) are treated as inpatients for the same 2 day protocol unless the medical issues require longer monitoring. In that event, comorbidities requiring a longer stay must be identified, with an anticipated length of inpatient stay.
  o Any requests for an extension of the inpatient stay beyond two days must be clinically reviewed.

DEFINITIONS

Infantile hemangioma: A benign neoplasm that commonly develops in neonates within their first few months of life. These birthmarks are more common in whites, and girls are three to five times more likely than boys to have a hemangioma. Most infantile hemangiomas undergo rapid initial proliferation, with a subsequently plateau in infants aged about 9-10 months; finally, they become involuted. The involuting phase extends from 1 year until 5 to 7 years of age. Although these lesions may involute spontaneously, they may be hemo-dynamically significant, particularly in early infancy, and may require systemic therapy to facilitate involution.

Propranolol: Propranolol is a non-selective B receptor antagonist which produces a variety of pharmacological effects. "Although the medication has had several clinical applications its major uses are in reducing heart rate, treating arrhythmias and angina, and as a moderately effective antihypertensive. Its use has been largely supplanted by more selective B blockers and combination alpha beta blockers such as carvedilol."

REFERENCES

Chen TS, Eichenfield LF, Friedlander SF; Infantile hemangiomas: an update on pathogenesis and therapy; Pediatrics; 2013 Jan; 131 (1): 99-108

Cruz OA, Siegfried EC; Propranolol treatment for periorcular capillary hemangiomas; J AAPOS; 2010 Jun; 14 (3): 199-200; Erratum in: J AAPOS; 2010 Aug; 14 (4): 379


Pavlakovic H, Kietz S, Lauerer P, Zutt M, Lakomek M; Hyperkalemia complicating propranolol treatment of an infantile hemangioma; Pediatrics; 2010 Dec; 126 (6): e1589-93

Tan ST, Itinteang T, Leadbitter P; Low-dose propranolol for multiple hepatic and cutaneous hemangiomas with deranged liver function; Pediatrics; 2011; Mar; 127 (3): e772-6

GUIDELINE HISTORY/REVISION INFORMATION

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| 03/01/2017 | • Reformatted and reorganized policy; transferred content to new template  
| | • Updated supporting information to reflect the most current references; no change to utilization management guiding principles  
| | • Archived previous policy version MMG112.D |