

Clinical Policy: 25-hydroxyvitamin D Testing in Children and Adolescents

Reference Number: LA.CP.MP.157

Coding Implications

~~Date of Last Revision~~new Date: 10/08/2020

Revision Log

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

Description

A global consensus statement recommends against universal screening for vitamin D deficiency in healthy children as there is insufficient evidence that the potential benefits of testing outweigh the potential harms.²

Policy/Criteria

- I. It is the policy of Louisiana Healthcare Connections that 25-hydroxyvitamin D testing in healthy, including obese but otherwise healthy, children (age ≥ 1 and ≤ 18) is **not medically necessary** because these tests have not been demonstrated to have a clear clinical benefit.

Background

Measurement of 25-OH-D (25-hydroxyvitamin D) concentration is the appropriate screening test for vitamin D deficiency. The 1,25-OH₂-D test has little to no predictive value related to bone health.⁶ However, there is lack of agreement concerning the best type of assay to conduct when measuring 25-hydroxyvitamin D.⁴ Furthermore, there is substantial controversy concerning cutoff levels to define vitamin D deficiency, as the evidence is inconsistent regarding optimal levels of vitamin D.¹

Prevalence of vitamin D deficiency in children (defined in the study as levels < 20 ng/mL) is ~~estimated to be about~~approximately 15.4%, with estimates ranging from 14% to 37%.^{3,6} Rates of deficiency vary among certain populations, with increased risk among black and Hispanic teenagers, as well as overweight and obese children and adolescents.⁶ Reduced serum vitamin D in overweight and obese children and adolescents reflects sequestration in adipose tissue, but little is known about the significance of low serum vitamin D in this population.⁴

A global consensus of 33 experts, convened at the request of the European Society for Pediatric Endocrinology, reviewed the available literature on prevention and management of nutritional rickets, and determined that routine vitamin D screening is not recommended for healthy children.² They note the frequent coexistence of dietary calcium and vitamin D deficiency, which alters the threshold for development of rickets, and makes a single screening value impractical.² The global consensus panel advocates for identification and screening of groups at high risk for vitamin D deficiency based on clinical factors, as opposed to universal screening as public health policy.

The American Academy of Pediatrics (AAP) – Section on Endocrinology advises against ordering vitamin D concentrations routinely in otherwise healthy children, including children who are overweight or obese.⁵ The AAP's report on optimizing bone health recommends screening for vitamin D deficiency only in children and adolescents with conditions associated with reduced bone mass and/or recurrent low-impact fractures.⁶

For healthy children and adolescents who are not ingesting enough foods with vitamin D, the ~~AAP recommends~~ Endocrine Society’s clinical practice guidelines for the prevention of vitamin D deficiency and the AAP recommend supplementation with vitamin D, as does the global consensus panel convened by the European Society for Pediatric Endocrinology. ^{2,6-7}

Coding Implications

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Table 1: CPT codes not medically necessary when billed with a corresponding ICD-10CM in Table 2.

CPT® Codes	Description
82306	Vitamin D; 25 hydroxy, includes fraction(s), if performed

Table 2: ICD-10-CM diagnosis codes not medically necessary when billed with a corresponding CPT code in Table 1.

ICD-10-CM Code	Description
E66.01	Morbid (severe) obesity due to excess calories
E66.09	Other obesity due to excess calories
E66.1	Drug-induced obesity
E66.3	Overweight
E66.8	Other obesity
E66.9	Obesity, unspecified
Z00.00	Encounter for general adult medical examination without abnormal findings
Z00.129	Encounter for routine child health examination without abnormal findings
Z00.8	Encounter for other general examination
Z68.52	Body mass index (BMI) pediatric, 5 th percentile to less than 85 th percentile for age
Z68.53	BMI pediatric, 85 th percentile to less than 95 th percentile for age
Z68.54	BMI pediatric, greater than or equal to 95 th percentile for age

Reviews, Revisions, and Approvals	<u>Revision Date</u>	Approval Date
Converted corporate to local policy.	08/15/2020	

Reviews, Revisions, and Approvals	<u>Revision Date</u>	Approval Date
<u>Annual review. Replaced “member” with “member/enrolee”</u> <u>References reviewed and updated. Reviewed by specialist. Changed</u> <u>"Last Review Date" in the header to "Date of Last Review" and</u> <u>"Date" in revision log to "Revision Date". Updated background with</u> <u>no impact to criteria.</u>	<u>10/22</u>	

References

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- ~~3.2.~~ Saintonge S, Bang H, Gerber LM. Implications of a new definition of vitamin D deficiency in a multiracial us adolescent population: the National Health and Nutrition Examination Survey III. *Pediatrics* 2009; 123:(3):797- to 803. doi:10.1542/peds.2008-1195 797-
- ~~4.3.~~ Misra M. Vitamin D insufficiency and deficiency in children and adolescents. ~~In: UpToDate, www.uptodate.com. Published April 12, 2022. Waltham, MA. Accessed February 6, 2020.~~ August 22, 2022
- ~~5.4.~~ Golden NH, Abrams SA, ~~and the AAP~~ Committee on Nutrition. Optimizing ~~b~~Bone ~~h~~Health in ~~c~~Children and ~~a~~Adolescents. *Pediatrics.* 2014-Oct; 134(4):e1229-~~43.~~ to e1243 doi: 10.1542/peds.2014-2173.
- ~~5.~~ Turer CB, Lin H, Flores G. Prevalence of vitamin D deficiency among overweight and obese US children. *Pediatrics* ~~December 2012;~~2013 ;131(1):e152 to e161. doi:10.1542/peds.2012-1711.
- ~~6.~~ Jin J. Screening for Vitamin D Deficiency in Adults. *JAMA.* 2021;325(14):1480. doi:10.1001/jama.2021.4606
- ~~6.7.~~ Holick MF, Binkley NC, Bischoff-Ferrari HA, et al. Evaluation, treatment, and prevention of vitamin D deficiency: an Endocrine Society clinical practice guideline [published correction appears in *J Clin Endocrinol Metab.* 2011 Dec;96(12):3908]. *J Clin Endocrinol Metab.* 2011;96(7):1911 to 1930. doi:10.1210/jc.2011-0385

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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