

Salivary Hormone Testing

Date of Origin: 08/2005

Last Review Date: 09/25/2024

Effective Date: 10/01/2024

Dates Reviewed: 08/2006, 12/2006, 12/2007, 01/2009, 02/2011, 03/2012, 01/2013, 12/2013, 08/2015, 08/2016, 08/2017, 04/2019, 04/2020, 10/2021, 09/2022, 09/2023, 09/2024

Developed By: Medical Necessity Criteria Committee

I. Description

Over the last several years, there has been an increased interest in testing hormone levels using saliva rather than blood, plasma, or urine. The tests available include but are not limited to progesterone, estrogen, testosterone, melatonin, and dehydroepiandrosterone (DHEA). The advantages of salivary hormone testing include the noninvasive nature and ease and convenience of sample collection, which can be done at home. Salivary hormone tests are primarily promoted for the evaluation of menopause and aging and are now available to consumers over the Internet without the need for a physician's prescription.

Cortisol salivary hormone testing can be utilized to diagnose Cushing's syndrome. Cushing's syndrome is a hormonal disorder caused by prolonged exposure of the body's tissues to high levels of cortisol hormone. While other conditions can have the same symptoms and signs, Cushing's syndrome can be diagnosed by measuring excessive cortisol levels. Cortisol levels vary throughout the day but drop considerably during the night. Due to the limitations of the currently available diagnostic tests for Cushing's syndrome (dexamethasone suppression test and 24-hour free cortisol level test) late night salivary cortisol test is a simple way to screen for Cushing's syndrome. This test has a high diagnostic specificity and sensitivity.

II. Criteria: CWQI HCS-0060

- A. Salivary hormone testing is considered medically necessary if **ALL** of the following criteria are met:
 - a. The test is requested to evaluate for suspected hypercortisolism of Cushing's syndrome in children and adults.
 - b. The test is being ordered by a qualified health professional; and
 - c. The test is performed in a CLIA (Clinical Laboratory Improvement Amendments) approved laboratory.
 - d. The test is **NOT** being requested for **ALL** of the following:
 - i. Diagnosis and/or monitoring of menopause
 - ii. Diagnosis and/or monitoring of diseases related to aging (i.e., osteoporosis)
 - iii. Any other indication not mentioned above.

III. Information Submitted with the Prior Authorization Request:

1. Chart notes indicating suspicion of hypercortisolism.

IV. CPT or HCPC codes covered:

| Codes | Description |
|-------|---|
| 82530 | Cortisol; free [other than late- night salivary cortisol for diagnosing Cushing's syndrome] |
| 82533 | total [other than late night salivary cortisol for diagnosing Cushing's syndrome] |
| 84999 | Unlisted chemistry procedure |

V. CPT or HCPC codes NOT covered for salivary hormone testing:

| Codes | Description |
|-------|---|
| 82626 | Dehydroepiandrosterone (DHEA) |
| 82627 | Dehydroepiandrosterone-sulfate (DHEA-S) |
| 82670 | Estradiol |
| 82671 | Estrogens; fractionated |
| 82672 | total |
| 82677 | Estriol |
| 82679 | Estrone |
| 83516 | Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; qualitative or semiquantitative, multiple step method [salivary testing for anti-tissue transglutaminase for the diagnosis of celiac disease] |
| 83520 | quantitative, not otherwise specified [not covered for measurement of salivary level of interleukin-8 as biomarkers for oral pre-cancer and oral squamous cell carcinoma] [not covered for salivary antibody testing (IgA, IgG, IgM) for the diagnosis of Sicca syndrome] |
| 84144 | Progesterone |
| 84402 | Testosterone; free |
| 84403 | total |
| 84436 | Thyroxine; total |
| 84437 | requiring elution (e.g., neonatal) |
| 84439 | free |
| 84443 | Thyroid stimulating hormone (TSH) |
| 84479 | Thyroid hormone (T3 or T4) uptake or thyroid hormone binding ratio (THBR) |
| 84480 | Triiodothyronine T3; total (TT-3) |
| 84481 | free |
| 86316 | Immunoassay for tumor antigen, other antigen, quantitative (e.g., CA 50, 72-4, 549), each [not covered for measurement of salivary level of CYFRA 21-1 as biomarkers for oral pre-cancer and oral squamous cell carcinoma] |
| 88341 | Immunohistochemistry or immunocytochemistry, per specimen; each additional single antibody stain procedure (List separately in addition to code for primary procedure) |

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| 88342 | Immunohistochemistry or immunocytochemistry, per specimen; initial single antibody stain procedure |
| 88344 | Immunohistochemistry or immunocytochemistry, per specimen; each multiplex antibody stain procedure |
| S3650 | Saliva test, hormone level; during menopause |

VI. Annual Review History

| Review Date | Revisions | Effective Date |
|-------------|--|----------------|
| 01/2013 | Annual Review: Added table with review date, revisions, and effective date. | 01/23/2013 |
| 12/2013 | Annual Review: No changes | 12/19/2013 |
| 08/2015 | Annual Review- added CPT/HCPC, ICD-9 and ICD-10 codes | 08/26/2015 |
| 08/2016 | Annual Review – no change to criteria, deleted ICD9 codes | 08/31/2016 |
| 08/2017 | | 08/23/2017 |
| 04/2019 | Annual Review – no changes | 05/01/2019 |
| 04/2020 | Annual Review: No changes | 05/01/2020 |
| 10/2021 | Annual Review: No changes | 11/01/2021 |
| 09/2022 | Annual Review: No changes | 10/01/2022 |
| 09/2023 | Annual Review: CPT 84999 added. Section V title updated - 'for salivary hormone testing' | 10/01/2023 |
| 09/2024 | Annual Review: No changes | 10/01/2024 |

VII. References

1. American Association of Clinical Endocrinologists (AACE). Medical guidelines for clinical practice for management of menopause. *Endocrine Practice*. 1999; 5:355-366.
2. Carroll T, Raff H, Findling JW. Late-night salivary cortisol measurement in the diagnosis of Cushing's syndrome. *Nat Clin Pract Endocrinol Metab*. 2008;4(6):344-350.
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4. Nieman LK, Biller BM, Findling JW, Newell-Price J, Savage MO, Stewart PM, Montori VM. The diagnosis of Cushing's syndrome: An Endocrine Society Practice Guideline. *J Clin Endocrinol Metab*. Accessed on March 24, 2012 at: <http://jcem.endojournals.org/cgi/content/full/93/5/1526?maxtoshow=&hits=10&RESULTFORMAT=&author1=Nieman+&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT>
5. Papanicolaou DA, Mullen N, Kyrou I, Nieman LK. Nighttime salivary cortisol: a useful test for the diagnosis of Cushing's syndrome. *J Clin Endocrinol Metab*. 2002 Oct;87(10):4515-21. Accessed on March 24, 2012 at: <http://jcem.endojournals.org/cgi/content/full/87/10/4515?maxtoshow=&hits=10&RESULTFORMAT=&author1=%95%09Papanicolaou&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT>
6. Raff H. Utility of salivary cortisol measurements in Cushing's syndrome and adrenal insufficiency. *J Clin Endocrinol Metab*. 2009;94(10):3647-3655.

7. Rubin GJ, Hotopf M, Papadopoulos A, Cleare A. Salivary cortisol as a predictor of postoperative fatigue. *Psychosom Med.* 2005;67(3):441-447
8. Vining RF, McGinley RA. The measurement of hormones in saliva: possibilities and pitfalls. *J Steroid Biochem.* 1987;27(1-3):81-94.
9. Physician Advisors

Appendix 1 – Applicable Diagnosis Codes:

| Codes | Description |
|-------|---------------------------------------|
| E24.0 | Pituitary-dependent Cushing's disease |
| E24.2 | Drug-induced Cushing's syndrome |
| E24.3 | Ectopic ACTH syndrome |
| E24.8 | Other Cushing's syndrome |
| E24.9 | Cushing's syndrome, unspecified |

Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD) and Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. They can be found at: <http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx>. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD):

| Jurisdiction(s): 5, 8 | NCD/LCD Document (s): |
|-----------------------|-----------------------|
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| NCD/LCD Document (s): |
|-----------------------|
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| Medicare Part B Administrative Contractor (MAC) Jurisdictions | | |
|---|--|------------------------------------|
| Jurisdiction | Applicable State/US Territory | Contractor |
| F (2 & 3) | AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ | Noridian Healthcare Solutions, LLC |