

If a conflict arises between a Clinical Payment and Coding Policy (“CPCP”) and any plan document under which a member is entitled to Covered Services, the plan document will govern. If a conflict arises between a CPCP and any provider contract pursuant to which a provider participates in and/or provides Covered Services to eligible member(s) and/or plans, the provider contract will govern. “Plan documents” include, but are not limited to, Certificates of Health Care Benefits, benefit booklets, Summary Plan Descriptions, and other coverage documents. BCBSNM may use reasonable discretion interpreting and applying this policy to services being delivered in a particular case. BCBSNM has full and final discretionary authority for their interpretation and application to the extent provided under any applicable plan documents.

Providers are responsible for submission of accurate documentation of services performed. Providers are expected to submit claims for services rendered using valid code combinations from Health Insurance Portability and Accountability Act (“HIPAA”) approved code sets. Claims should be coded appropriately according to industry standard coding guidelines including, but not limited to: Uniform Billing (“UB”) Editor, American Medical Association (“AMA”), Current Procedural Terminology (“CPT®”), CPT® Assistant, Healthcare Common Procedure Coding System (“HCPCS”), ICD-10 CM and PCS, National Drug Codes (“NDC”), Diagnosis Related Group (“DRG”) guidelines, Centers for Medicare and Medicaid Services (“CMS”) National Correct Coding Initiative (“NCCI”) Policy Manual, CCI table edits and other CMS guidelines.

Claims are subject to the code edit protocols for services/procedures billed. Claim submissions are subject to claim review including but not limited to, any terms of benefit coverage, provider contract language, medical policies, clinical payment and coding policies as well as coding software logic. Upon request, the provider is urged to submit any additional documentation.

Measurement of Thromboxane Metabolites for ASA Resistance

Policy Number: CPCPLAB031

Version 1.0

Enterprise Clinical Payment and Coding Policy Committee Approval Date: July 5, 2023

Plan Effective Date: September 1, 2023

Description

BCBSNM has implemented certain lab management reimbursement criteria. Not all requirements apply to each product. Providers are urged to review Plan documents for eligible coverage for services rendered.

Reimbursement Information:

1. The measurement of thromboxane metabolites in urine (e.g., AspirinWorks) to evaluate aspirin resistance **is not reimbursable** for all indications.

Procedure Codes

The following is not an all-encompassing code list. The inclusion of a code does not guarantee it is a covered service or eligible for reimbursement.

Codes
82570, 84431

References:

Abrams, C. (2021). *Platelet biology*. <https://www.uptodate.com/contents/platelet-biology>

Abramson, S. (2021). *Aspirin: Mechanism of action, major toxicities, and use in rheumatic diseases*. <https://www.uptodate.com/contents/aspirin-mechanism-of-action-major-toxicities-and-use-in-rheumatic-diseases>

Aradi, D., Collet, J. P., Mair, J., Plebani, M., Merkely, B., Jaffe, A. S., Mockel, M., Giannitsis, E., Thygesen, K., ten Berg, J. M., Mueller, C., Storey, R. F., Lindahl, B., & Huber, K. (2015). Platelet function testing in acute cardiac care - is there a role for prediction or prevention of stent thrombosis and bleeding? *Thromb Haemost*, *113*(2), 221-230. <https://doi.org/10.1160/th14-05-0449>

Bij de Weg, J. M., Abheiden, C. N. H., Fuijkschot, W. W., Harmsze, A. M., de Boer, M. A., Thijs, A., & de Vries, J. I. P. (2020). Resistance of aspirin during and after pregnancy: A longitudinal cohort study. *Pregnancy Hypertens*, *19*, 25-30. <https://doi.org/10.1016/j.preghy.2019.11.008>

Douketis, J. D., Spyropoulos, A. C., Spencer, F. A., Mayr, M., Jaffer, A. K., Eckman, M. H., Dunn, A. S., & Kunz, R. (2012). Perioperative Management of Antithrombotic Therapy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *CHEST*, *141*(2), e326S-e350S. <https://doi.org/10.1378/chest.11-2298>

Dretzke, J., Riley, R. D., Lordkipanidze, M., Jowett, S., O'Donnell, J., Ensor, J., Moloney, E., Price, M., Raichand, S., Hodgkinson, J., Bayliss, S., Fitzmaurice, D., & Moore, D. (2015). The prognostic utility of tests of platelet function for the detection of 'aspirin resistance' in patients with established cardiovascular or cerebrovascular disease: a systematic review and economic evaluation. *Health Technol Assess*, *19*(37), 1-366. <https://doi.org/10.3310/hta19370>

Ebrahimi, P., Farhadi, Z., Behzadifar, M., Shabaninejad, H., Abolghasem Gorji, H., Taheri Mirghaed, M., Salemi, M., Amin, K., Mohammadibakhsh, R., Bragazzi, N. L., & Sohrabi, R. (2020). Prevalence rate of laboratory defined aspirin resistance in cardiovascular disease patients: A systematic review and meta-analysis. *Caspian J Intern Med*, *11*(2), 124-134. <https://doi.org/10.22088/cjim.11.2.124>

FDA. (2004). Accumetrics VerifyNow-Aspirin Assay. https://www.accessdata.fda.gov/cdrh_docs/pdf4/k042423.pdf

FDA. (2007). 510(K-) Summary. https://www.accessdata.fda.gov/cdrh_docs/pdf6/K062025.pdf
Geske, F. J., Guyer, K. E., & Ens, G. (2008). AspirinWorks: a new immunologic diagnostic test for monitoring aspirin effect. *Mol Diagn Ther*, *12*(1), 51-54. <http://dx.doi.org/>

Gillet, B., Ianotto, J. C., Mingant, F., Didier, R., Gilard, M., Ugo, V., Lippert, E., & Galinat, H. (2016). Multiple Electrode Aggregometry is an adequate method for aspirin response testing in

myeloproliferative neoplasms and differentiates the mechanisms of aspirin resistance. *Thromb Res*, 142, 26-32. <https://doi.org/10.1016/j.thromres.2016.04.006>

Gum, P. A., Kottke-Marchant, K., Poggio, E. D., Gurm, H., Welsh, P. A., Brooks, L., Sapp, S. K., & Topol, E. J. (2001). Profile and prevalence of aspirin resistance in patients with cardiovascular disease. *Am J Cardiol*, 88(3), 230-235. [https://doi.org/10.1016/s0002-9149\(01\)01631-9](https://doi.org/10.1016/s0002-9149(01)01631-9)

Harrison, P., Bethel, M. A., Kennedy, I., Dinsdale, R., Coleman, R., & Holman, R. R. (2018). Comparison of nine platelet function tests used to determine responses to different aspirin dosages in people with type 2 diabetes. *Platelets*, 1-9. <https://doi.org/10.1080/09537104.2018.1478402>

Helena_Laboratories. (2021). Plateletworks. <https://www.helena.com/plateletworks.htm>

Krasopoulos, G., Brister, S. J., Beattie, W. S., & Buchanan, M. R. (2008). Aspirin "resistance" and risk of cardiovascular morbidity: systematic review and meta-analysis. *Bmj*, 336(7637), 195-198. <https://doi.org/10.1136/bmj.39430.529549.BE>

Lordkipanidze, M., Pharand, C., Schampaert, E., Turgeon, J., Palisaitis, D. A., & Diodati, J. G. (2007). A comparison of six major platelet function tests to determine the prevalence of aspirin resistance in patients with stable coronary artery disease. *Eur Heart J*, 28(14), 1702-1708. <https://doi.org/10.1093/eurheartj/ehm226>

Mahla, E., Tantry, U. S., Schoerghuber, M., & Gurbel, P. A. (2020). Platelet Function Testing in Patients on Antiplatelet Therapy before Cardiac Surgery. *Anesthesiology*, 133(6), 1263-1276. <https://doi.org/10.1097/aln.0000000000003541>

Martin, C. P., & Talbert, R. L. (2005). Aspirin resistance: an evaluation of current evidence and measurement methods. *Pharmacotherapy*, 25(7), 942-953.

Michelson, A. D., Cattaneo, M., Eikelboom, J. W., Gurbel, P., Kottke-Marchant, K., Kunicki, T. J., Pulcinelli, F. M., Cerletti, C., & Rao, A. K. (2005). Aspirin resistance: position paper of the Working Group on Aspirin Resistance. *J Thromb Haemost*, 3(6), 1309-1311. <https://doi.org/10.1111/j.1538-7836.2005.01351.x>

Paniccia, R., Priora, R., Liotta, A. A., & Abbate, R. (2015). Platelet function tests: a comparative review. *Vasc Health Risk Manag*, 11, 133-148. <https://doi.org/10.2147/vhrm.S44469>

Piao, J., Yoo, C., Kim, S., Whang, Y.-W., Choi, C. U., & Shin, S. (2021). Performance comparison of aspirin assay between anysis and verifynow: Assessment of therapeutic platelet inhibition in patients with cardiac diseases. *Clinical Hemorheology and Microcirculation, Preprint*, 1-8. <https://doi.org/10.3233/CH-211171>

Singh, S., Ronde, M. W. J. d., Creemers, E. E., Made, I. V. d., Meijering, R., Chan, M. Y., Tan, S. H., Chin, C. T., Richards, A. M., Troughton, R. W., Fong, A. Y. Y., Yan, B. P., & Pinto-Sietsma, S. J. (2021). Low miR-19b-1-5p Expression Is Related to Aspirin Resistance and Major Adverse Cardiovascular Events in Patients With Acute Coronary Syndrome. *Journal of the American Heart Association*, 10(2), e017120. <https://doi.org/doi:10.1161/JAHA.120.017120>

Smock, K. J., & Rodgers, G. M. (2010). Laboratory evaluation of aspirin responsiveness. *Am J Hematol*, 85(5), 358-360. <https://doi.org/10.1002/ajh.21674>

Spahn, D. R., Bouillon, B., Cerny, V., Duranteau, J., Filipescu, D., Hunt, B. J., Komadina, R., Maegele, M., Nardi, G., Riddez, L., Samama, C. M., Vincent, J. L., & Rossaint, R. (2019). The European guideline on management of major bleeding and coagulopathy following trauma: fifth edition. *Crit Care*, 23(1), 98. <https://doi.org/10.1186/s13054-019-2347-3>

Wang, N., Vendrov, K. C., Simmons, B. P., Schuck, R. N., Stouffer, G. A., & Lee, C. R. (2018). Urinary 11-dehydro-thromboxane B2 levels are associated with vascular inflammation and prognosis in atherosclerotic cardiovascular disease. *Prostaglandins Other Lipid Mediat*, 134, 24-31. <https://doi.org/10.1016/j.prostaglandins.2017.11.003>

Zehnder, J., Tantry, U., & Gurbel, P. (2019). Nonresponse and resistance to aspirin - UpToDate. In H. Libman & G. Saperia (Eds.), *UpToDate*. <https://www.uptodate.com/contents/nonresponse-and-resistance-to-aspirin>

Policy Update History:

7/5/2023	Document updated with literature review. Reimbursement information unchanged. References revised.
11/1/2022	New policy