



**BlueCross BlueShield  
of Oklahoma**

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. BCBSOK may use reasonable discretion interpreting and applying this policy to services being delivered in a particular case. BCBSOK 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.

## **ST2 Assay for Chronic Heart Failure**

**Policy Number: CPCPLAB040**

**Version 1.0**

**Plan Effective Date: Nov. 1, 2022**

### **Description**

BCBSOK 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:**

The use of the Presage® ST2 Assay to evaluate the prognosis of patients diagnosed with chronic heart failure **is not reimbursable**.

The use of the Presage® ST2 Assay to guide management (pharmacological, device-based, exercise, etc.) of patients diagnosed with chronic heart failure **is not reimbursable**.

The use of the Presage® ST2 Assay in the post cardiac transplantation period, including, but not limited to, predicting prognosis and predicting acute cellular rejection, **is not reimbursable**.

## Procedure Codes

<b>Codes</b>
82777, 83006

## References:

- Anand, I. S., Rector, T. S., Kuskowski, M., Snider, J., & Cohn, J. N. (2014). Prognostic value of soluble ST2 in the Valsartan Heart Failure Trial. *Circ Heart Fail*, 7(3), 418-426. doi:10.1161/circheartfailure.113.001036
- Bayes-Genis, A., Zhang, Y., & Ky, B. (2015). ST2 and patient prognosis in chronic heart failure. *Am J Cardiol*, 115(7 Suppl), 64b-69b. doi:10.1016/j.amjcard.2015.01.043
- Boman, K., Thormark Frost, F., Bergman, A. R., & Olofsson, M. (2018). NTproBNP and ST2 as predictors for all-cause and cardiovascular mortality in elderly patients with symptoms suggestive for heart failure. *Biomarkers*, 23(4), 373-379. doi:10.1080/1354750x.2018.1431692
- Broch, K., Ueland, T., Nymo, S. H., Kjekshus, J., Hulthe, J., Muntendam, P., . . . Gullestad, L. (2012). Soluble ST2 is associated with adverse outcome in patients with heart failure of ischaemic aetiology. *Eur J Heart Fail*, 14(3), 268-277. doi:10.1093/eurjhf/hfs006
- CCS. (2017). 2017 Comprehensive Update of the Canadian Cardiovascular Society Guidelines for the Management of Heart Failure. Retrieved from [https://www.onlinecjc.ca/article/S0828-282X\(17\)30973-X/pdf](https://www.onlinecjc.ca/article/S0828-282X(17)30973-X/pdf)
- Chow Sheryl, L., Maisel Alan, S., Anand, I., Bozkurt, B., de Boer Rudolf, A., Felker, G. M., . . . Zile Michael, R. (2017). Role of Biomarkers for the Prevention, Assessment, and Management of Heart Failure: A Scientific Statement From the American Heart Association. *Circulation*, 135(22), e1054-e1091. doi:10.1161/CIR.0000000000000490
- Colucci, W. (2020). Overview of the therapy of heart failure with reduced ejection fraction - UpToDate. In UpToDate. Retrieved from [https://www.uptodate.com/contents/overview-of-the-management-of-heart-failure-with-reduced-ejection-fraction-in-adults?search=overview-of-the-therapy-of-heart-failure-with-reduced-ejection-fraction&source=search\\_result&selectedTitle=1~150&usage\\_type=default&display\\_rank=1](https://www.uptodate.com/contents/overview-of-the-management-of-heart-failure-with-reduced-ejection-fraction-in-adults?search=overview-of-the-therapy-of-heart-failure-with-reduced-ejection-fraction&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1)
- Colucci, W. (2021). Prognosis of heart failure. In UpToDate. Retrieved from [https://www.uptodate.com/contents/prognosis-of-heart-failure?source=search\\_result&search=st2%20heart%20failure&selectedTitle=4~150#H1](https://www.uptodate.com/contents/prognosis-of-heart-failure?source=search_result&search=st2%20heart%20failure&selectedTitle=4~150#H1)
- Colucci, W., Dunlay, Shannon. (2020). Clinical manifestations and diagnosis of advanced heart failure. Retrieved from [https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-advanced-heart-failure?search=heart%20failure%20symptoms&source=search\\_result&selectedTitle=3~150&usage\\_type=default&display\\_rank=3#H3231247585](https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-advanced-heart-failure?search=heart%20failure%20symptoms&source=search_result&selectedTitle=3~150&usage_type=default&display_rank=3#H3231247585)
- Cresci, S., Pereira Naveen, L., Ahmad, F., Byku, M., de las Fuentes, L., Lanfear David, E., . . . null, n. (2019). Heart Failure in the Era of Precision Medicine: A Scientific Statement From the American Heart Association. *Circulation: Genomic and Precision Medicine*, 12(10), e000058. doi:10.1161/HCG.0000000000000058

- Crespo-Leiro, M. G., Metra, M., Lund, L. H., Milicic, D., Costanzo, M. R., Filippatos, G., . . . Ruschitzka, F. (2018). Advanced heart failure: a position statement of the Heart Failure Association of the European Society of Cardiology. *Eur J Heart Fail*. doi:10.1002/ejhf.1236
- Dimitropoulos, S., Mystakidi, V. C., Oikonomou, E., Siasos, G., Tsigkou, V., Athanasiou, D., . . . Tousoulis, D. (2020). Association of Soluble Suppression of Tumorigenesis-2 (ST2) with Endothelial Function in Patients with Ischemic Heart Failure. *Int J Mol Sci*, 21(24). doi:10.3390/ijms21249385
- FDA. (2011). SUBSTANTIAL EQUIVALENCE DETERMINATION Retrieved from [https://www.accessdata.fda.gov/cdrh\\_docs/reviews/K111452.pdf](https://www.accessdata.fda.gov/cdrh_docs/reviews/K111452.pdf)
- Felker, G. M., Fiuzat, M., Thompson, V., Shaw, L. K., Neely, M. L., Adams, K. F., . . . O'Connor, C. M. (2013). Soluble ST2 in ambulatory patients with heart failure: Association with functional capacity and long-term outcomes. *Circ Heart Fail*, 6(6), 1172-1179. doi:10.1161/circheartfailure.113.000207
- Hou, Z. W., Yu, H. B., Liang, Y. C., Gao, Y., Xu, G. Q., Wu, M., . . . Han, Y. L. (2020). Circulating Soluble ST2 Predicts All-Cause Mortality in Severe Heart Failure Patients with an Implantable Cardioverter Defibrillator. *Cardiol Res Pract*, 2020, 4375651. doi:10.1155/2020/4375651
- Januzzi, J. L., Horne, B. D., Moore, S. A., Galenko, O., Snow, G. L., Brunisholz, K. D., . . . Kfoury, A. G. (2013). Interleukin receptor family member ST2 concentrations in patients following heart transplantation. *Biomarkers*, 18(3), 250-256. doi:10.3109/1354750x.2013.773081
- Januzzi, J. L., Mebazaa, A., & Di Somma, S. (2015). ST2 and prognosis in acutely decompensated heart failure: the International ST2 Consensus Panel. *Am J Cardiol*, 115(7 Suppl), 26b-31b. doi:10.1016/j.amjcard.2015.01.037
- Ky, B., French, B., McCloskey, K., Rame, J. E., McIntosh, E., Shahi, P., . . . Cappola, T. P. (2011). High-sensitivity ST2 for prediction of adverse outcomes in chronic heart failure. *Circ Heart Fail*, 4(2), 180-187. doi:10.1161/circheartfailure.110.958223
- Mueller, T., Gegenhuber, A., Leitner, I., Poelz, W., Haltmayer, M., & Dieplinger, B. (2016). Diagnostic and prognostic accuracy of galectin-3 and soluble ST2 for acute heart failure. *Clin Chim Acta*, 463, 158-164. doi:10.1016/j.cca.2016.10.034
- Pascual-Figal, D. A., & Januzzi, J. L. (2015). The biology of ST2: the International ST2 Consensus Panel. *Am J Cardiol*, 115(7 Suppl), 3b-7b. doi:10.1016/j.amjcard.2015.01.034
- Ponikowski, P., Voors, A. A., Anker, S. D., Bueno, H., Cleland, J. G. F., Coats, A. J. S., . . . Group, E. S. C. S. D. (2016). 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC) Developed with the special contribution of the Heart Failure Association (HFA) of the ESC. *European Heart Journal*, 37(27), 2129-2200. doi:10.1093/eurheartj/ehw128
- Stojkovic, S., Kaider, A., Koller, L., Brekalo, M., Wojta, J., Diedrich, A., . . . Pezawas, T. (2018). GDF-15 is a better complimentary marker for risk stratification of arrhythmic death in non-ischaemic, dilated cardiomyopathy than soluble ST2. *J Cell Mol Med*, 22(4), 2422-2429. doi:10.1111/jcmm.13540

Tyminska, A., Kaplon-Cieslicka, A., Ozieranski, K., Budnik, M., Wancerz, A., Sypien, P., . . . Filipiak, K. J. (2019). Association of Galectin-3 and Soluble ST2, and Their Changes, with Echocardiographic Parameters and Development of Heart Failure after ST-Segment Elevation Myocardial Infarction. *Dis Markers*, 2019, 9529053. doi:10.1155/2019/9529053

Wang, T. J., Wollert, K. C., Larson, M. G., Coglianese, E., McCabe, E. L., Cheng, S., . . . Januzzi, J. L. (2012). Prognostic utility of novel biomarkers of cardiovascular stress: the Framingham Heart Study. *Circulation*, 126(13), 1596-1604. doi:10.1161/circulationaha.112.129437

Yancy Clyde, W., Jessup, M., Bozkurt, B., Butler, J., Casey Donald, E., Colvin Monica, M., . . . Westlake, C. (2017). 2017 ACC/AHA/HFSA Focused Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *Circulation*, 136(6), e137-e161. doi:10.1161/CIR.0000000000000509

Yancy, C. W., Jessup, M., Bozkurt, B., Butler, J., Casey, D. E., Drazner, M. H., . . . Wilkoff, B. L. (2013). 2013 ACCF/AHA Guideline for the Management of Heart Failure: Executive Summary. doi:10.1161/CIR.0b013e31829e8807

### Policy Update History:

11/1/2022	New policy
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