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<Reference: 97307925-FA>

7 November 2024

## **Urgent Field Safety Notice – Product Advisory ACURATE neo2™ and ACURATE Prime™ Aortic Valve Systems (Transcatheter Aortic Valve Implantation (TAVI))**

**Subject:** ACURATE neo2™ Aortic Valve System (TAVI) Instructions for Use and Physician Training Updates, and recommendations for ACURATE Prime™, related to Valve Under Expansion Risk.

Dear «Users\_Name»,

This letter provides important information regarding updates to the ACURATE neo2™ Aortic Valve System Instructions for Use (IFUs) and Physician Training related to the risk of valve under expansion, as detailed in **Appendix 1**.

The updates related to the risk of valve under expansion are already included in the ACURATE Prime™ Instructions for Use (IFUs) and Physician Training. Due to its recent launch (October 2024), ACURATE Prime may not yet be available in all regions.

### **Key Points:**

- Physicians who use ACURATE neo2 should follow the recommendations laid out in this letter.
- Physicians who use ACURATE Prime should continue to follow the current IFU and training already provided.
- Patients who have been treated with an ACURATE neo2 or an ACURATE Prime valve do not require additional patient management and should continue to follow standard patient care at the discretion of their physician.

Boston Scientific is not asking for the return of any product. The ACURATE neo2 and ACURATE Prime products continue to meet required specifications and remain available for use.

**Device Description:**

ACURATE *neo2*<sup>™</sup> Aortic Valve System consists of the ACURATE *neo2*<sup>™</sup> Valve, which is used in conjunction with the ACURATE *neo2*<sup>™</sup> Transfemoral Delivery System and the ACURATE *neo2*<sup>™</sup> Loading Kit.

ACURATE Prime<sup>™</sup> Aortic Valve System consists of the ACURATE Prime<sup>™</sup> Valve, which is used in conjunction with the ACURATE Prime<sup>™</sup> Delivery System and the ACURATE Prime<sup>™</sup> Loading Kit.

Our records indicate that your facility received some of the concerned product. **The table below provides a complete list of all affected products**, including Product Description, Material Number (UPN), GTIN, and Lot/Batch numbers. Please note that **only the devices listed below are affected. No other Boston Scientific product is involved in this Field Safety Notice.**

| Product Description   | Material Number (UPN) | GTIN Number    | Lot Number |
|---|-----------------------|----------------|------------|
| ACURATE <i>neo2</i> <sup>™</sup> Valve                        | SYM-SV23-004          | 07640168110130 | ALL        |
|   | SYM-SV25-004          | 07640168110147 |            |
|   | SYM-SV27-004          | 07640168110154 |            |
|   | SYM-SV23-005          | 00191506022228 |            |
|   | SYM-SV25-005          | 00191506022235 |            |
|   | SYM-SV27-005          | 00191506022242 |            |
| ACURATE <i>neo2</i> <sup>™</sup> Transfemoral Delivery System | SYM-DS-005            | 07640168110123 | ALL        |
|   | SYM-DS-010            | 00191506019402 |            |
| ACURATE <i>neo2</i> <sup>™</sup> Loading Kit                  | SYM-AC-010            | 00191506019419 | ALL        |
| ACURATE Prime <sup>™</sup> Valve                              | H74939690230          | 00191506030858 | ALL        |
|   | H74939690250          | 00191506030865 |            |
|   | H74939690270          | 00191506030872 |            |
|   | H74939690290          | 00191506030889 |            |
| ACURATE Prime <sup>™</sup> Delivery System                    | H749396822325         | 00191506030933 | ALL        |
|   | H749396822729         | 00191506030940 |            |
| ACURATE Prime <sup>™</sup> Loading Kit                        | H749396942325         | 00191506030971 | ALL        |
|   | H749396942729         | 00191506030988 |            |

**Description**

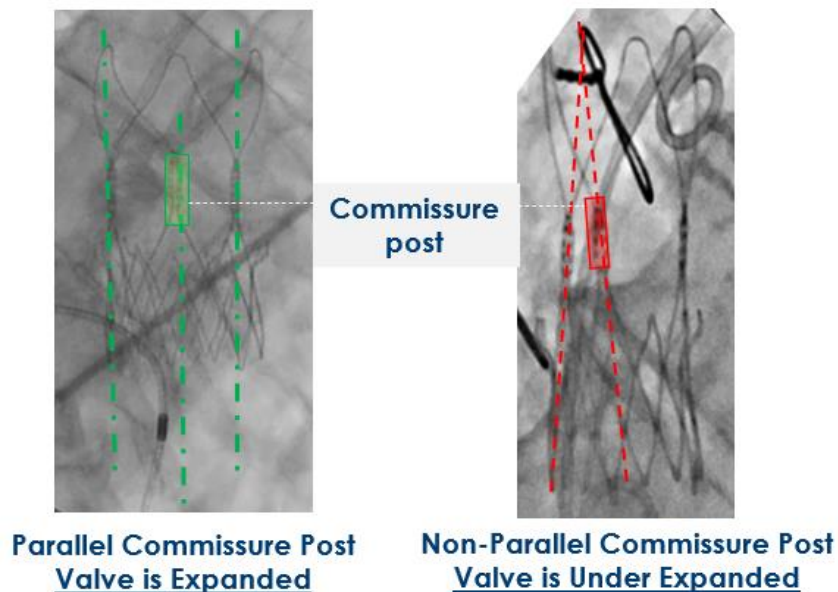
Boston Scientific has become aware of new information related to valve under expansion, that emerged from review of the 1-year clinical trial data from the ACURATE IDE.

The ACURATE IDE clinical study is a prospective, multi-centre study of US and Canada sites only. It is designed to evaluate the safety and effectiveness of the ACURATE *neo2* Aortic Valve System for TAVI in subjects with severe native aortic stenosis who are indicated for TAVI.

The Main Randomized Cohort represents 1:1 randomization of ACURATE *neo2* as the test article versus the Control which is the commercially available SAPIEN 3 (Edwards) or Evolut (Medtronic). At 1-year, the ACURATE IDE missed its primary endpoint (ACURATE *neo2* non-inferiority to the Control group for the composite of death, stroke and rehospitalization).

Detailed investigation of the 1-year data identified valve under expansion as a potential leading contributing factor of the missed primary endpoint. ACURATE *neo2* valve under expansion was associated with an increased rate of primary endpoint events compared to cases where the ACURATE *neo2* valve was expanded. However, valve under expansion was not previously identified through clinical experiences with the ACURATE *neo2* valve nor through ACURATE *neo2* post market surveillance.

**Figure 1: ACURATE valve under fluoroscopy - valve under expansion is recognized as a non-parallel Commissure Post**



Valve under expansion can be seen under fluoroscopy (as shown in **Figure 1**) during the index procedure and mitigated with appropriate pre-dilation and post-dilation practices. Therefore, Boston Scientific has updated the ACURATE *neo2* IFUs for the risk of valve under expansion and the practices that may reduce this risk, as follows:

- Increased emphasis on pre-dilation with an appropriately sized valvuloplasty balloon.
- Use of a second fluoroscopy view during the procedure to recognize non-parallel commissure posts and under expansion.
- Post-dilation, in accordance with IFU, to improve valve under expansion.

As ACURATE *neo2* is a product with mandatory physician training, Boston Scientific is also updating the ACURATE *neo2* global physician training program for the risk of valve under expansion and the practices that may reduce this risk. This is consistent with ACURATE PRIME training already available and deployed to new ACURATE Prime users.

### Recommendations

- 1- For ACURATE *neo2*, review IFU updates related to valve under expansion, as detailed in **Appendix 1**.
- 2- For ACURATE *neo2*, complete training on the importance of valve expansion which will be provided by Boston Scientific.
- 3- For ACURATE Prime, follow existing IFUs and training provided by Boston Scientific.
- 4- To provide awareness of this information, share this notice with any other clinicians in your hospital who use the Boston Scientific ACURATE *neo2* or ACURATE Prime Aortic Valve Systems. Also share this communication with any other organization to which these devices may have been transferred. Please maintain awareness of this notice for an appropriate period to ensure its effectiveness.
- 5- Maintain a copy of this notice in your facility's records.
- 6- Continue to report all device-related incidents or quality concerns experienced with the use of these devices to Boston Scientific, distributor or local representative and the national Competent Authority if appropriate (in accordance with all applicable local regulations).

**Instructions:**

1- **Please complete the attached Acknowledgement Form even if you do not have any affected product.**

2- **When completed, please return the Acknowledgement Form to your Boston Scientific office for the attention of «Customer\_Service\_Fax\_Number» on or before 27 November 2024.**

Your national Competent Authority has been informed of this Field Safety Notice.

We regret any inconvenience that this action may cause, and we appreciate your understanding as we act to ensure patient safety and customer satisfaction.

If you have any questions or would like assistance with this Field Safety Notice, please contact your local Sales Representative.

Yours sincerely,

Marie Pierre Barlanga  
Quality Department  
Boston Scientific International S.A.

Attachments: - APPENDIX 1 – IFU Updates  
- Acknowledgment Form

## APPENDIX 1 – Updates to ACURATE neo2™ Aortic Valve System Instructions for Use (IFU)

NOTE: Table below provides ACURATE neo2™ Aortic Valve System IFU updates; the updated wording is provided in blue text.

| <b>Delivery System and Loading Kit IFU(s)</b>  |  |
|--|--|
| Changing From  | Changing To  |
| <p><b>Precautions During Use:</b> The implant procedure should be conducted under fluoroscopic guidance.</p>   | <p><b>Precautions During Use:</b> The implant procedure should be conducted under fluoroscopic guidance. <a href="#">The correct fluoroscopy projection for implantation of the Valve is when all three (3) native aortic valve cusps are in the same plane. After final deployment of the Valve, the use of more than one fluoroscopic projection supports assessment and evaluation of Valve position and expansion.</a></p>   |
| <p><b>Pre-dilation of Native Valve:</b> Prepare the appropriate Balloon Valvuloplasty Catheter (BVC) according to its Instructions For Use</p>   | <p><b>Pre-dilation of Native Valve:</b> Prepare the appropriate Balloon Valvuloplasty Catheter (BVC) according to <a href="#">manufacturer's Instructions For Use</a>. <b>NOTE:</b> <a href="#">It is important to correctly size the BVC for effective pre-dilation. Effective pre-dilation can help reduce the need for post-dilation.</a></p>   |
| <p><b>Verification of Valve Position and Post-Implant Monitoring:</b> Leaving the guidewire in position across the Valve, measure both invasive and non-invasive hemodynamic parameters to check positioning and function of the Valve. Perform an angiogram to evaluate device performance and coronary patency after Valve deployment. The use of echocardiographic imaging supports the assessment of the position of the Valve and an evaluation of the para-valvular and intravalvular leakage. Post-dilation of ACURATE neo2 Aortic Valve is recommended in the presence of significant paravalvular leak.</p> | <p><b>Verification of Valve Position and Post-Implant Monitoring:</b> <a href="#">With pigtail catheter in position across the Valve, measure both invasive and non-invasive hemodynamic parameters to check positioning and function of the Valve. Perform an angiogram to evaluate Valve performance, position, expansion and coronary patency after Valve deployment. The use of echocardiographic imaging supports assessment and evaluation of Valve function, including paravalvular and intravalvular leakage. The use of a second fluoroscopy projection supports assessment and evaluation of Valve expansion.</a> Post-dilation of ACURATE neo2 Aortic Valve is recommended in the presence of valve under-expansion and significant valve dysfunction (paravalvular leak, elevated gradient).</p> |
| <b>Valve IFU(s)</b>  |  |
| Changing From  | Changing To  |
| <p><b>WARNINGS:</b> Post-dilation of the Valve could damage the device integrity or cause migration of the Valve. Proceed with caution if it is necessary to post-dilate the Valve. Ensure post-dilation balloon shape, dimensions and tolerances are suitable for the Valve.</p>  | <p><b>WARNINGS:</b> <a href="#">If performing post-dilation of the Valve, please refer to the Instructions for Use of the ACURATE neo2 Delivery System/Loading Kit for Operational Instructions.</a> Post-dilation of the Valve could <a href="#">cause device complications (damaged integrity, migration of the Valve) and patient complications (rupture)</a>. Proceed with caution if it is necessary to post-dilate the Valve. Ensure post-dilation balloon shape, dimensions and tolerances are suitable for the Valve <a href="#">and patient anatomy</a>.</p>  |
| <p><b>Precautions During Use:</b> Implantation of the Valve shall be preceded by dilation of the stenotic native aortic valve by means of balloon aortic valvuloplasty.</p>  | <p><b>Precautions During Use:</b> <a href="#">Pre-dilation of the stenotic native aortic valve by means of balloon aortic valvuloplasty is required prior to implantation of the prosthesis. Ensure pre-dilation is effective by selecting the appropriate size Balloon Valvuloplasty Catheter (BVC) in accordance with manufacturer's Instructions For Use. Effective pre-dilation can help reduce the need for post-dilation.</a></p>  |



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**Acknowledgement Form – Urgent Field Safety Notice**  
**ACURATE neo2™ and ACURATE Prime™ Aortic Valve Systems**  
**(Transcatheter Aortic Valve Implantation (TAVI))**

97307925-FA

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**By signing this form, I confirm that**

**I have read and understood  
the Boston Scientific Field Safety Notice**

**dated 7 November 2024 for**

**ACURATE neo2™ and ACURATE Prime™ Aortic Valve Systems  
(Transcatheter Aortic Valve Implantation (TAVI)).**

**NAME\*** \_\_\_\_\_ **Title** \_\_\_\_\_

**Telephone** \_\_\_\_\_ **Email** \_\_\_\_\_

**Customer' SIGNATURE\*** \_\_\_\_\_ **DATE\*** \_\_\_\_\_

\* Required field

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