



Strengthening the cardiology service to support TAVI therapy growth

From 2011 to 2016, Switzerland experienced strong growth in TAVI with therapy offered in ~15 hospitals and appeared to have plateaued. Although a recognized TAVI center in Switzerland, USB Heart Centre wanted to expand patients' access.

Challenge

To achieve their vision, USB had to overcome a few challenges:

- Issues regarding TAVI patient flow resulting in procedural delays
- Unclear roles and responsibilities combined with lack of dedicated personnel for care coordination
- Lack of data to measure programme performance and therapy penetration, preventing the definition of clear improvement targets and initiatives
- Lack of proactive referrals engagement

USB asked Boston Scientific to conduct a deep-dive assessment of their TAVI business, including a comprehensive analysis of patient flow and recommendations to improve the programme. Their objective was not only to evaluate obstacles in developing the therapy, but also to implement an action plan enabling to provide the best possible care for more patients in TAVI.

Action

Working together, the teams considered a comprehensive and personalised approach to assist USB to:

- **Refine heart team processes** to facilitate patient selection between surgical and mini-invasive approach for valve replacement, capturing all USB medical stakeholders' criteria
- **Define roles and responsibilities** within the TAVI programme, including the addition of a care coordinator
- **Establish a programme monitoring dashboard** (e.g. length of stay, number of procedures per TAVI day, etc.)
- **Engage external referrers** to educate them on USB expertise and facilitate patient care
- **Conduct in-depth research** on country/regional therapy potentials and modeled TAVI penetration to identify development opportunities
- **Facilitate discussions** within USB Heart Center through a series of internal multidisciplinary workshops around the TAVI programme
- **Optimise the patient pathway process** from referral to discharge by implementing actions to mitigate bottlenecks identified during the initial TAVI programme assessment
- **Improve USB Heart Center communication** leveraging press releases, key events, etc. capitalising on the hospital expertise in the field of valve replacement

About the Hospital

Universitätsspital Basel (USB) is one of five university hospitals in Switzerland, caring for more than 210,000 patients per year. Within its 44 departments, the Heart Center admitted 2,264 patients and participated in more than 33,000 outpatient episodes in 2019 and the cardiac surgery and interventional cardiology teams conducted more than 900 interventions.

Increased
TAVI
volume by
40%

Optimized
length of stay
through better
team alignment



Outcomes*

Within twelve months, the partnership improved the TAVI programme at USB in several aspects:

- **Increased TAVI volume by 40%** versus baseline to 165 procedures in 2019
- **Raised awareness** of the surgical team, trained heart surgeons on TAVI and improved heart centre cooperation, including heart team meeting process rationalization, resulting in 15% growth in surgical valve replacement volumes
- **Contributed to decrease length of stay by 24%** (from 12.6 in baseline year to 9.6 at end of 2019), based on BSC analytics of anonymised USB activity data
- **Assisted in reducing procedure time by 13%** by better alignment and readiness of all stakeholders involved in the procedure (e.g. better integration of anaesthesia in therapy pathway)
- **Captured description of roles and responsibilities** into job posting for a structural heart coordinator
- **Animated workshops** to define a referral survey aimed at obtaining input on why referrers do or do not send patients to USB and what measures could be implemented to further drive referral numbers
- **Recommended dedicated therapy focus days** to optimize cath lab capacity



"Thanks to their good network and their many years of experience, Boston Scientific was able to help us achieve our goals in the TAVI development programme."

- Arton Jusaj, Cardiology clinic manager, Universitätsspital Basel, Switzerland



"We chose to partner with Boston Scientific, a leading healthcare company, to co-develop TAVI-related solutions. Through this collaborative approach, we managed to overcome key challenges our TAVI programme was facing and significantly improve patient access to this therapy."

- Prof. Raban Jeger, Head of Structural Cardiology, Universitätsspital Basel, Switzerland

*Outcomes from a real ADVANTICS™ programme from Jan 2019 to Dec 2019. Results from case studies are not predictive of results in other cases. Results in other cases may vary.

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