

# EuroPCR highlights

## Part 3: The Edwards Benchmark™ program

18-20 May 2021

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This year, the annual meeting of EuroPCR was held as a 3-day digital event, supplemented with on-demand content. EuroPCR historically covers a diverse range of topics in interventional cardiovascular medicine.

There were many sessions dedicated to the evolving changes of transcatheter aortic valve implantation (TAVI). This third and final part of the report details the conference highlights on benefits of the Edwards Benchmark™ program, including improved patient outcomes, organisational efficiencies, and program implementation.

Discussions on optimising TAVI procedures, leading to patient and organisational benefits and resource conservation were perceived as a contemporary concern as the world emerges from the pandemic into a 'new normal' post-COVID-19.

### EuroPCR: relevant sessions attended

Session type	Session title	Speakers
Livestream	TAVI: contemporary indications and techniques	Didier Tchetché Hendrik Treede Lars Sondergaard Helene Eltchaninoff
Livestream	Optimise your TAVI patient's outcomes: implementing the Edwards Benchmark program	Simon Kennon Olivier Darremont Helene Eltchaninoff Derk Frank Sandra Lauck Francesco Saia
On-demand	Improving patient outcomes with Edwards Benchmark program	Helene Eltchaninoff

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### Edwards Benchmark™ Programme

The Edwards Benchmark™ program was introduced by Prof. Helene Eltchaninoff, Dr Sandra Lauck, Dr Olivier Darremont and Dr Francesco Saia; it was described as a multidisciplinary team-based and patient-centred quality improvement program that revisits historical practice and matches contemporary patient care to current TAVI techniques that are based on up-to-date empirical evidence.

The research basis for the Edwards Benchmark™ program focuses on the latest empirical evidence for minimalist TAVI pathways.<sup>1-3</sup> Looking at best practice across the patient trajectory is essentially the spirit of the Benchmark™ program: standardised program processes with increased efficiency, resulting in a minimalist pathway with maximum safety and improved patient outcomes.

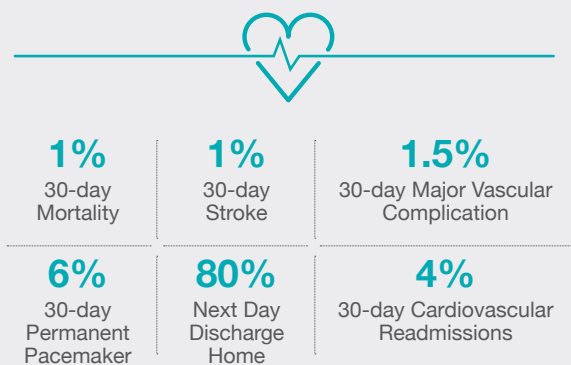
### Patient outcomes

When polled on what they believed the benefit of an optimised TAVI pathway to be, 70% of the EuroPCR attendees selected 'superior patient outcomes', and 53% selected 'continuous access to care'. With only 3% selecting 'unclear benefits', it is apparent that most of the audience believed that there is some benefit derived from optimising the TAVI procedure pathway – both Dr Francesco Saia and Dr Derk Frank agreed with the audience, commenting that it is great to see that most of the attendees perceive some benefit to optimising the TAVI procedure pathway. In Kiel, Dr Derk Frank is managing to achieve some great results in regard to the mean length of stay, since this has been reduced from 10 to 5 days through standardisation of the TAVI procedure.

Additionally, Dr Sandra Lauck described improved quality-of-life of TAVI was demonstrated from the 3M TAVI study, which took place from 2014 to 2017.<sup>1</sup> With most patients deriving significant quality-of-life benefits by Week 2, this offered reassurance that next-day discharge home was well tolerated.

In Vancouver, Dr Sandra Lauck is achieving the below patient outcomes, these patient outcomes form the objectives of the Benchmark™ program (next-day discharge, major vascular complications, mortality and pacemaker implantation), with the other two objectives coming from the FAST-TAVI trial:<sup>3</sup>

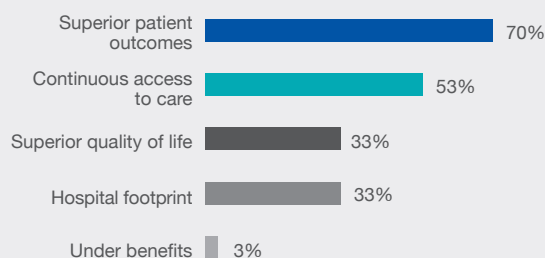
### Edwards BENCHMARK Performance



“An effective, evidence-based program to improve communication and to improve patient’s trajectory of care”

Sandra Lauck

### What do you think is the key benefit of optimising the TAVI pathway?



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18-20 May 2021

### Organisational benefits

Current variability in hospital length of stay is an opportunity to apply measures that will allow for quicker discharge. Early discharge decreases the overall cost of hospital stay/patient. The Edwards Benchmark™ program provides opportunities to implement measures for optimisation and resource conservation pre-, peri- and post-procedure. This can include shortening and simplifying each of the procedure steps and using protocols to avoid delays in discharge.

### Benchmark™ Programme results from France and Germany

#### Germany: Derk Frank

- German mean length of stay is 10 days
- Post implementing the Benchmark™ program total length of stay reduced from 9 to 6 days
- No reported safety complications
- Numerically impressive differences in outcomes between conventional and Benchmark™ TAVI (3.4% to 0.9%)

“In Germany, we recognised the need for a streamlined TAVI program with timely and safe discharge”

**Derk Frank**

### Barriers to Benchmark™ program implementation

When polled, 43% of the audience identified ‘administration buy-in’ as the biggest barrier to implementing a TAVI efficiency program, such as the Edwards Benchmark™ program. This was closely followed by ‘additional capacity’, ‘TAVI coordinator’ and ‘discharge destination’, all  $\geq 30\%$ .

Prof. Helene Eltchaninoff was intrigued by these results since hospital reimbursement for TAVI is based on patients’ length of stay. She recognises that there is a loss of reimbursement with early discharge, but there are stronger medical reasons to discharge early. Reduced hospitalisation equates to increased TAVI

#### France: Olivier Darremont

- In 2020, TAVI procedures numbered 452, back in 2017, this was 194
- Length of stay was 5.3 days in 2020, and 7 days in 2017
- Between Dec 2020 and Mar 2021:
  - 30-day mortality: 0%
  - 30-day stroke: 2.4%
  - Pacemaker implantation: 2.3%
  - Vascular bleeding 2.3%
  - Overall readmission: 9.3%
- In 2021, length of stay is 4.2 days

procedures, and Dr Francesco Saia added that in the wake of the pandemic, there is a strong need to increase optimisation, organisational efficiencies, and the number of procedures to reduce waiting lists and a backlog of care. Reimbursement, however, may be an issue in other organisations.

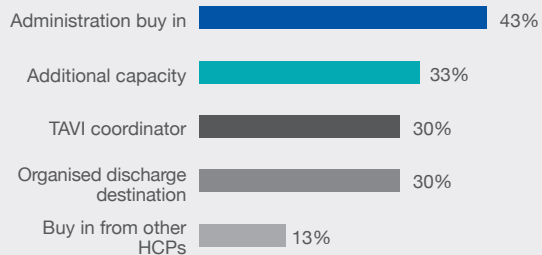
Facilitator Simon Kennon added, that in the UK, he does not believe administration buy-in to be a problem, but rather healthcare professional buy-in. He was very interested how this reflects multi-regional differences in healthcare systems.

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### What do you think is the biggest organisational barrier to implementing the Edwards Benchmark™ program?



### Ongoing studies

Dr Derk Frank had the opportunity to present the Benchmark™ Registry: an ongoing study to reduce hospital length of stay in patients undergoing TAVI and reducing the need for ICU resources. This study is taking place over 30 sites with the aim to recruit 2400 patients, 1500 of which will be prospective.

### Looking ahead

It is very apparent that TAVI has come a long way since the first successful attempt in 2002.<sup>1</sup> As EuroPCR 2021 draws to a close for another year, it is evident where we might expect the research and evolution of TAVI to continue in 2021: honing the patient selection criteria for TAVI to, as Dr Sandra Lauck described, get it right for every patient, first time.

Perhaps more importantly, as the world emerges from the pandemic into a 'new normal', there will be an expectation of improved organisational efficiencies to get through a backlog of care: TAVI is a procedure that is minimally invasive and whose pathway has been optimised and streamlined to deliver excellent patient outcomes and confer organisational benefits.

### References

1. Lauck SB, et al. Vancouver Transcatheter Aortic Valve Replacement Clinical Pathway. Minimalist Approach, Standardised Care, and Discharge Criteria to Reduce Length of Stay. *Circ Cardiovasc Qual Outcomes* 2016;9:312–21.
2. Wood DA, et al. The Vancouver 3M (Multidisciplinary, Multimodality, But Minimalist) Clinical Pathway Facilitates Safe Next-Day Discharge Home of Low-, Medium-, and High-Volume Transfemoral Transcatheter Aortic Valve Replacement Centres. *JACC Cardiovasc Interv* 2019;12:459–69.
3. Barbanti M, et al. Optimising patient discharge management after transfemoral transcatheter aortic valve implantation: the multicentre European FAST-TAVI trial. *Euro Intervention* 2019;15:147–54.

