

FREQUENTLY ASKED QUESTIONS

**We are interested in optimizing our cath lab operation.
Why would we need Terumo Business Edge® to assist with our efforts?**

Terumo has been consistently dedicated to expanding and educating on procedural techniques that can provide new opportunities for labs to tailor their procedural approach to the patient's clinical needs. Whether the clinical approach requires accessing the patient via the radial, femoral or tibial/pedal, Terumo brings a wealth of knowledge, experience, expertise, education and training that will help your program create the care pathways that deliver operational and cost-effective measures to maximize patient outcomes and deliver on an optimal patient experience. And now with the healthcare landscape continuing to evolve, our processes can help you focus your program on even greater cost saving processes and operational efficiency with the utilization of same day discharge.

Terumo Business Edge® has assessed numerous cath lab programs across the country. We have created the best-practice care pathways for your cath lab operation and can assist your organization with rapid implementation to achieve immediate results, including higher-quality outcomes, improved operational efficiencies and true cost savings. Results that are quantified and actionable.

**We use the transradial technique as our primary technique for both angiography and PCI services,
why do I need to consider help from Terumo Business Edge® to optimize our services?**

Hospitals around the country are using transradial access increasingly to manage reduction in complications, higher patient satisfaction, and improved quality outcomes, all of which bring greater value to all stakeholders within the healthcare system. High adoption of the radial technique doesn't necessarily mean that all processes surrounding the patient selection, scheduling, preparation and rapid discharge have been redesigned to optimize the patient experience and deliver true cost savings. Our experience with many transradial service organizations has proven that process redesign is necessary to achieve true cost, efficiency and patient satisfaction goals.

What are the true savings estimates in an optimized transradial program?

While early results were estimated to be between \$800 and \$1200 (*Amin AP et al. JACC Cardiovasc Interv. 2013 Aug; 6 (8):827-34*) of cost avoidance from reduced complication rates and same day discharge, the latest published results from Dr. Amin (*Amin AP et al. JACC Cardiovasc Interv. 2017 Feb; 10 (4):342-51*) indicate it is considerably greater, over \$3600 in cost savings from rooming, nursing care, reductions in site complications, drugs, labs, etc. Terumo Business Edge® delivers a comprehensive service to assist programs with an understanding of their true costs and achievement of these economic and operational goals through the implementation of standardized clinical pathways.

However, it is important to note that in the economic studies conducted to date, the greatest savings comes from same day discharge. So, this does not necessarily mean abandoning femoral approach; as it is neither practical or feasible, but tailoring the access approach to your patient and optimizing your care pathways to manage either radial or femoral.

We do not want to discharge our patients who come from far away post-procedure; that is a service element they have come to expect from us. Why would we consider promoting transradial and same-day discharge?

The recent release of the SCAI consensus document (*Catheter Cardiovasc Interv. 2018 Apr 24. doi: 10.1002/ccd.27637*) on same day discharge can help clarify and provide the necessary support for moving your program to incorporate a same day discharge program. The data continues to support

same day discharge as a safe process. In addition, the programs we have worked with confirm the positive impact on patient experience.

The reality of the current reimbursement structure is that you are not getting paid for over-night stays on any angiography and PCI patients with an outpatient status. Outpatients in a bed are a cost to our healthcare systems; therefore, all patients without a clinical reason to be admitted must be discharged as quickly and efficiently as their clinical status will allow. Hospitals must begin to recognize that there are other lower cost alternatives which should be considered, ex: utilizing a nearby hotel for patients who can't return home same day.

Optimally all outpatients who are candidates for same day discharge should be identified prior to their procedure and assisted/coached to achieve discharge in the safest, most cost-effective manner.

Outpatients in a bed complicate bed management duties and in the worst case scenarios prevent potential patients from being admitted and receiving care. If your organization is forced into a diversion status regularly, then overnight stays of outpatients is likely a contributing factor.

Some of our operators have trained on the transradial access technique, but we have been unable to achieve full scale adoption, how can you help us?

We recommend working with program leadership and aligning the transradial strategy with overall system goals. Simply adopting the technique is not implementation of a programmatic change, and until a plan with tactics and metrics are applied, little overall benefit will be gained by the healthcare organization. Terumo Business Edge® can provide the training and care pathway modification that will assist in facilitating greater adoption of same day discharge and transradial access. Facilities should prepare for the likelihood that PCI will undergo continued cost scrutiny by CMS, whether via some type of bundle program or migration to the ASC or OBL environment. Without optimizing the transradial potential hospitals will not achieve the cost savings and quality requirements payers and CMS are demanding.

We have adopted transradial access as primary technique for our patients and it has not materialized into any savings, how can you assist us?

Trading one form of access (femoral versus radial) in of itself will achieve minor cost savings in terms of reducing complications compared to larger, more significant cost savings from a care pathway modification. For greater realized cost savings, a cath lab must consider making programmatic changes and realizing where significant costs savings are buried. We now know from recent literature (*Amin AP et al. JACC Cardiovasc Interv. 2017 Feb; 10 (4):342-51*) that same day discharge accounts for significant cost savings with an additional costs savings (-\$900.00) favoring transradial. We have worked with high volume transradial programs and identified that redesign of all the patient processes that surround the patient from selection to pre-procedure preparation to post-procedure care, must occur for true cost savings to be obtained. Adoption of the transradial care technique means redesign of care to meet the future cost and outcomes requirements as outlined by CMS and any potential payment models that will be tied to lower costs and quality.

Our hospital has its own lean or process improvement team, how is this any different?

We recognize that many hospitals have invested in creating their own lean teams to manage various clinical or process improvement projects around the hospital. We realize that these teams serve a vital role in hospitals looking to improve their processes and we embrace their participation in our program. Our team has decades of experience in and around the cath lab, recovery, operations and physician practice management. This makes us uniquely qualified to address the entire care pathway continuum from doctor's office to discharge. We can and will involve them in the process and they will serve as a valuable adjunct to the program once we have established the necessary improvements.

We have been unable to leverage the use of transradial services as a way to differentiate our CV program, what would you suggest?

While all high volume transradial programs will offer many patient testimonials of outstanding satisfaction, there has yet to be a study directly correlating a patients' likelihood to recommend a health care organization based on their transradial experience. However, the Terumo Business Edge® team of experts have worked with organizations for ten years, helping to evolve transradial adoption and demonstrating to institutions how marketing the positive benefits of transradial can drive increased awareness and patient referrals. A clear recommendation for any healthcare organization with high radial adoption and associated notes of patient satisfaction is to post comments and/or patient videos on the organization website.

Patients with both a femoral and radial procedure are reported to be amazed and joyful to return to home same day. Nothing could be a better marketing campaign for your organization should you reside in a community with multiple, formidable, CV competitors.

I am a very interested physician champion, wishing to launch a transradial access program in my facility. I am unable to gain any traction, what can you suggest? How can you assist me?

Having worked with many high-volume transradial programs, we have the experience to assist you as the physician champion and engage the necessary administrative leaders to highlight the clinical, economical and true organizational benefits of an optimized transradial program. Improved overall cost of care, outcomes and patient satisfaction are all outcomes of a successful transradial program and key goals of every healthcare system. Our team can assist not only with obtaining buy-in for a transradial program, but coordinate rapid implementation coupled with follow-up monitoring to quickly achieve the desired results and return-on-investment. Terumo Business Edge® has a decade of experience providing the necessary training, proctoring and on-going support to ensure your physicians and staff are well versed in the nuances, benefits and overcoming the challenges we have seen in programs all over the country.

We have very low complication rates and send most of our patients home post discharge with radial access, what gains could I achieve with using Terumo Business Edge® services?

High adoption rates of transradial access along with low complication rates and assurances of same day discharge mean that your program has achieved success solely in comparison to your own program. Working with Terumo Business Edge® in the form of a structured assessment which will confirm that true optimization has occurred for all processes that surround not only the transradial patient, but your entire cath lab operation. Our team can benchmark your results among your peer group to prove true cost and quality results plus confirm all clerical and clinical processes are optimized. You might be surprised where cost savings can be identified and realized.

How has your optimization work affected staffing at some of your more successful client engagements?

Process improvement and optimization of the workflows that surround the patient inherently makes staff more efficient and satisfied. Patients are well educated and prepared in advance of their procedure day, including being aware of a radial procedure and planning for same-day discharge. This work streamlines the patient processes making pre-procedure preparation quick and disposition of the patient very automatic. In this regard, employee man hours can be reduced. The goal of process improvement is efficiency not job elimination. Reduction in staff hours can mean that valuable and qualified clinical FTEs can be redeployed to other CV specialty areas within the health system like nurse education/training, EP or TAVR programming.

What does this optimization work entail and what would we plan for? What is our commitment?

Your commitment can begin with a no charge letter of understanding (LOU) with Terumo Business Edge®. We would then plan for and conduct an assessment of your program. This is fairly detailed, but is essential to understand how your program currently performs; creating a more customized assessment process. Upon review of the assessment with your team, recommendations will be provided on how implementing a cath lab optimization process would benefit your program. If your institution desires to move forward with an implementation, we will discuss contractual arrangements, expectations, deliverables, etc. Specifics include the following:

- The assessment work begins with an off-site analysis of some very specific volume, quality, staffing and operational data — performing a baseline analysis to compare your current performance to other high radial performers across the country. This analysis is followed with several days on site by our team to perform direct observation of all the clerical and clinical processes that surround the cath lab with specific emphasis on your use of transradial access, vascular closure and same day discharge, as well as to interview the key stakeholders. The live assessment concludes with a preliminary debriefing and prioritization of opportunities.
- After reviewing the results and findings of the assessment, we will discuss options for implementation and how we can help you achieve the desired results outlined in the assessment. The monetary investment on your part will be weighed and compared against the ROI we believe is achievable. A proposal outlining the work we would conduct and how we would go about achieving the results will be provided.