Abbott

Perclose™ ProStyle™

Suture-Mediated Closure and Repair System



The Economic Value of Perclose™ Devices in Electrophysiology (EP) Procedures



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Perclose™ Devices can help hospitals improve patient recovery after electrophysiology procedures, resulting in workflow efficiency and economic benefits.

PROVEN CLINICAL BENEFITS OF PERCLOSE™ DEVICES IN EP PROCEDURES INCLUDE.[1]

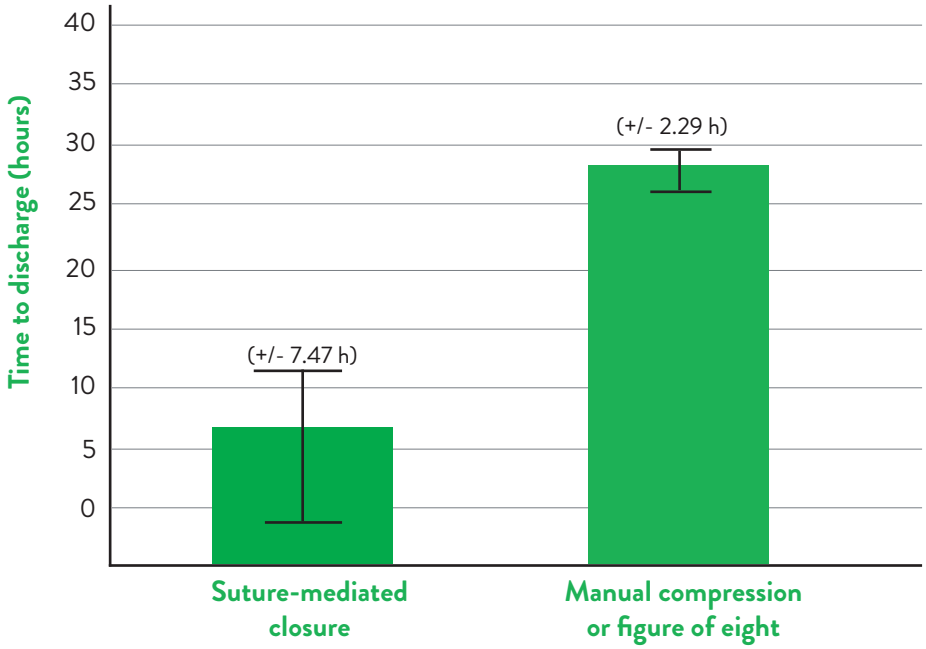
- Immediate and durable hemostasis allowing patients to sit up immediately
- Ambulation can be achieved in as early as 1 hour
- Patients can be discharged in as early as 2 hours

THE CLINICAL BENEFITS OF PERCLOSE™ DEVICES ALLOW HOSPITALS TO OPTIMIZE THE CLINICAL RESOURCES AND IMPROVE WORKFLOW EFFICIENCY, RESULTING IN COST SAVINGS.

Most patients treated with Perclose™ Devices can be discharged on the same day as opposed to staying overnight.

- A large percentage of patients treated with Perclose™ Devices (as high as 96%) can be discharged on the same day.[2,3]
- Same day discharge following ablation procedures is safe and associated with low prevalence of post-discharge complications, re-hospitalizations/ER visits, and mortality.[4]
- Time to discharge using suture-mediated closure is shorter compared to manual compression or figure of eight suture (5.89 ± 7.47 h vs. 27.09 ± 2.29 h). See Table 1.[3]

Table 1



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Same-day discharge protocol results in cost savings compared to overnight stay.

- The strategy of using SMC (suture-mediated closure) with early discharge results in cost savings compared to overnight stay with manual compression or figure of eight suture.[3]
- Hospitals that implement same-day discharge strategy can realize cost-savings as much as **$1,676 per patient** (**est. for 2026: $2,189***, figures not including the cost of SMC devices).[5]
- More same-day discharges mean greater cost savings. When 50 patients were discharged the same day, hospitals may realize cost savings as much as **$83,813** per year (**est. for 2026: $109,480***, figures not including the cost of SMC devices) see Table 2.[5]

The increased efficiency of hospital staff and utilization potentially allows hospitals to treat additional patients and improve patient access.[5,6]

- The shortened time to discharge potentially allows hospitals to treat one additional patient per day.[2]
- By allowing patients to be discharged on the same day, the hospitals may improve throughput via increased availability of beds that could be occupied by additional patients, or patients in greater need of acute, inpatient care.[5,6]

Scientific Statements Supporting Same-Day Discharge

- Heart Rhythm Society (HRS) and American College of Cardiology (ACC) established a standardized discharge criteria and checklist for same-day discharge, which includes the absence of vascular access bleeding. Same-day discharge was associated with lower hospital costs. vs. overnight stay.[7]
- HRS literature published in 2024 demonstrated that the use of vessel closure devices enables same-day discharge for patients undergoing electrophysiology procedures, making it an important device in the ASC setting.[8]

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IMPORTANT SAFETY INFORMATION

Rx ONLY

Perclose™ ProStyle™ Suture-Mediated Closure and Repair (SMCR) System

INDICATIONS

The Perclose™ ProStyle™ Suture-Mediated Closure and Repair System is indicated for the percutaneous delivery of suture for closing the common femoral artery and vein access sites of patients who have undergone diagnostic or interventional catheterization procedures.

The Perclose™ ProStyle™ SMCR System is indicated for closing the common femoral vein in single or multiple access sites per limb.

The Perclose™ ProStyle™ SMCR System is used without or, if required, with adjunctive manual compression.

For access sites in the common femoral artery using 5F to 21F sheaths. For arterial sheath sizes greater than 8F, at least two devices and the pre-close technique are required.

For access sites in the common femoral vein using 5F to 24F sheaths. For venous sheath sizes greater than 14F, at least two devices and the pre-close technique are required.

CAUTION

Federal law restricts this medical device to sale by or on the order of a physician (or allied healthcare professionals, authorized by, or under the direction of, such physicians) who is trained in diagnostic and / or interventional catheterization procedures and who has been trained by an authorized representative of Abbott.

Prior to use, the operator must review the Instructions for Use and be familiar with the deployment techniques associated with the use of this device.

During closure of access sites using a procedural sheath greater than 8F, it is recommended that a vascular surgeon or a surgeon with vascular training be available in case surgical conversion to control bleeding and to repair the vessel is needed.

CONTRAINDICATIONS

There are no known contraindications to the use of this device.

WARNINGS

Do not use the Perclose™ ProStyle™ SMCR System if the packaging or sterile barrier has been previously opened or damaged or if the components appear to be damaged or defective.

DO NOT RESTERILIZE OR REUSE. The Perclose™ ProStyle™ SMCR System is intended for single use only.

Do not use the Perclose™ ProStyle™ SMCR System if the sterile field has been broken where bacterial contamination of the sheath or surrounding tissues may have occurred, since such a broken sterile field may result in infection.

Do not use the Perclose™ ProStyle™ SMCR System if the puncture site is located above the most inferior border of the inferior epigastric artery (IEA) and / or above the inguinal ligament based upon bony landmarks, since such a puncture site may result in a retroperitoneal hematoma. Perform a femoral angiogram to verify the location of the puncture site. Note: This may require both a right anterior oblique (RAO) and left anterior oblique (LAO) angiogram to adequately visualize where the sheath enters the femoral vessel.

Do not use the Perclose™ ProStyle™ SMCR System in arterial or venous access if the puncture is through the posterior wall or if there are multiple punctures in the same access site, since such punctures may result in a hematoma or retroperitoneal bleed.

Do not use the Perclose™ ProStyle™ SMCR System if the puncture site is located in the superficial femoral artery or the profunda femoris artery, or the bifurcation of these vessels, since such puncture sites may result in a pseudoaneurysm, intimal dissection, or an acute vessel closure (thrombosis of small artery lumen). Perform a femoral angiogram to verify the location of the puncture site. Note: This may require both a right anterior oblique (RAO) and left anterior oblique (LAO) angiogram to adequately visualize where the sheath enters the femoral vessel.

PRECAUTIONS

1. Prior to use, inspect the Perclose™ ProStyle™ SMCR System to ensure that the sterile packaging has not been damaged during shipment. Examine all components prior to use to verify proper function. Exercise care during device handling to reduce the possibility of accidental device breakage.
2. As with all catheter-based procedures, infection is a possibility. Observe sterile technique at all times when using the Perclose™ ProStyle™ SMCR System. Employ appropriate groin management, as per hospital protocol, post-procedure, and post-hospital discharge to prevent infection.
3. Use a single wall puncture technique. Do not puncture the posterior wall of the vessel in arterial and venous access.
4. Do not deploy the Perclose™ ProStyle™ Device at an elevated angle against resistance as this may cause a cuff miss or device breakage.
5. There are no reaccess restrictions if previous arteriotomy / venotomy repairs were achieved with Abbott Medical SMC or SMCR systems.
6. If significant blood flow is present around the Perclose™ ProStyle™ Device, do not deploy needles. Remove the device over a 0.038" (0.97 mm) (or smaller) guide wire and insert an appropriately sized sheath.
7. Prior to depressing the plunger to advance the needles, stabilize the device by the body to ensure the foot is apposed to the vessel wall and the device does not twist during deployment. Twisting (torquing) of the device could lead to needle deflection resulting in a cuff miss. Do not use excessive force or repeatedly depress the plunger. Excessive force on the plunger during deployment could potentially cause breakage the device, which may necessitate intervention and / or surgical removal of the device and vessel repair.
8. Do not apply excessive force to the lever when opening the foot and returning the foot to its original position down to the body of the device. Do not attempt to remove the device without closing the lever. Excessive force on the lever or attempting to remove the device without closing the lever could cause breakage of the device and / or lead to vessel trauma, which may necessitate intervention and / or surgical removal of the device and vessel repair.
9. Do not advance or withdraw the Perclose™ ProStyle™ Device against resistance until the cause of that resistance has been determined. Excessive force used to advance or torque the Perclose™ ProStyle™ Device should be avoided, as this may lead to significant vessel damage and / or breakage of the device, which may necessitate intervention and / or surgical removal of the device and vessel repair.
10. If excessive resistance in advancing the Perclose™ ProStyle™ Device is encountered, withdraw the device over a 0.038" (0.97 mm) (or smaller) guide wire and reinsert the introducer sheath or use manual compression.
11. Remove the Perclose™ ProStyle™ sheath before tightening the suture. Failure to remove the sheath prior to tightening the suture may result in detachment of the tip of the sheath.
12. Care should be taken to avoid damage to the suture from handling. Avoid crushing damage due to application of surgical instruments such as clamps, forceps or needle holders.
13. For catheterization procedures using a 5F – 8F procedural sheath, use manual compression in the event that bleeding from the femoral access site persists after the use of the Perclose™ ProStyle™ SMCR System to obtain hemostasis.
14. For catheterization procedures using a procedural sheath > 8F, use manual compression, compression assisted devices, surgical repair, and / or other appropriate treatment methods in the event that bleeding from the femoral access site persists after the use of the Perclose™ ProStyle™ SMCR System to obtain hemostasis.
15. For catheterization procedures using a procedural sheath > 8F, where the operating physician is not a vascular surgeon, it is recommended that a vascular surgeon or a surgeon with vascular training be available during the procedure to perform any necessary vascular surgical intervention.
16. If the Perclose™ ProStyle™ Device is used to close and repair multiple access sites in the same vessel, space the access sites apart adequately to minimize sheath-device interference.

POTENTIAL ADVERSE EVENTS

Potential adverse events associated with use of vessel closure devices may include, but are not limited to, the following:

- Allergic reaction or hypersensitivity to device components
- Vascular access complications which may require transfusion or vessel repair, including:
  - o Anemia
  - o Aneurysm
  - o Arteriovenous fistula
  - o Bleeding / hemorrhage / re-bleeding
  - o Bruising
  - o Hematoma
  - o Embolism
  - o Inflammation
  - o Intimal tear / dissection
  - o Perforation
  - o Pseudoaneurysm
  - o Retroperitoneal hematoma / bleeding
  - o Scar formation
  - o Wound dehiscence
- Cardiac arrhythmias (including conduction disorders, atrial and ventricular arrhythmias)
  - o Atrial arrhythmias
  - o Ventricular arrhythmias
- Femoral artery / venous complications which may require additional intervention, including:
  - o Arterial / venous stenosis
  - o Arterial / venous occlusion
  - o Arteriovenous fistula
  - o Intimal tear / dissection
  - o Ischemia distal to closure site
  - o Nerve injury
  - o Numbness
  - o Thrombus formation
  - o Vascular injury
- Venous thromboembolism (including deep vein thrombosis, pulmonary embolism, post-procedure pulmonary embolism)
- Infection – local or systemic
- Pain
- Hemodynamic instability: o Hypotension / hypertension
  - o Vasovagal episode
- Death
- Device complications
- Device failure
- Device malfunction

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*Cost of $1,676 in 2019; estimated to be $2,189 in 2026 after adjusting for inflation. Cost of $83,813 in 2019; estimated to be $109,480 in 2026 after adjusting for inflation. Source: Inflation Calculator

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