A Breakthrough Technology for Your Select High-Surgical-Risk Patients with Severe DMR

Indications:
MitraClip Clip Delivery System: The MitraClip Clip Delivery System is indicated for the percutaneous reduction of significant symptomatic mitral regurgitation (MR ≥ 3+) due to primary abnormality of the mitral apparatus [degenerative MR] in patients who have been determined to be at high risk for mitral valve surgery by a heart team, which includes a cardiac surgeon experienced in mitral valve surgery and a cardiologist experienced in mitral valve disease, and in whom existing comorbidities would not preclude the expected benefit from reduction of the mitral regurgitation.

Steerable Guide Catheter: The Steerable Guide Catheter is used for introducing various cardiovascular catheters into the left side of the heart through the interatrial septum.

See Important Safety Information Referenced Within.

* Degenerative Mitral Regurgitation
Despite Its Prevalence, Mitral Regurgitation Is Often Undertreated

MR is a debilitating disease that initiates a cascade of events progressing to heart failure, then death, if untreated.\(^2,3\)

Medical therapy can treat the symptoms of MR, but to treat the disease itself, there are only two options: surgery and transcatheter mitral valve repair (TMVR).

**Surgery** is effective for eligible candidates, but this is not an option for many patients.\(^4,5\)

For significant, symptomatic, degenerative MR patients who are at high risk for surgery, **TMVR** offers a solution.

**TMVR With MitraClip® Therapy Is Transforming the Standard of Care**

TMVR with MitraClip\(^\circledR\) therapy is an important, minimally invasive treatment option for significant, symptomatic, degenerative MR patients who are at high risk for surgery.

Referrals for TMVR can improve the quality of patients’ lives.\(^6,7\)

NYHA Functional Class Improvement with MitraClip\(^\circledR\) Therapy \(^6\)

<table>
<thead>
<tr>
<th>Patients with class III/IV</th>
<th>Before TMVR 87% at baseline</th>
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<tr>
<td>Patients with class III/IV</td>
<td>After TMVR 13% at 1 year</td>
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Prohibitive Risk DMR Cohort (N=127) at baseline, (N=84) at 1 year

To find out if TMVR with MitraClip\(^\circledR\) therapy is an appropriate option for your patients, locate your local MitraClip\(^\circledR\) center at MitraClip.com/hcp
Clinical Results Demonstrate the Safety and Efficacy of MitraClip® Therapy

TMVR with MitraClip therapy has been established as a safe, proven option for symptomatic patients with significant degenerative MR and are at high risk for surgery. It has been shown to result in clinically important improvements, including:

- Reduce MR
- Reverse left ventricular remodeling
- Improve NYHA functional class

MitraClip® patients also have short hospital stays, with a majority (87%) discharged to home.

73% reduction in HF hospitalization rates per patients decreased from 0.67 (1 year prior to MitraClip® therapy) to 0.18 (1 year post discharge)

A Decade of Worldwide Experience

June 2003
First patient treated (first-in-man) by Dr. Jose Condado, in Caracas, Venezuela

August 2005
EVEREST II studies (n=55) evaluate preliminary safety and effectiveness

Feb. 2007
EVEREST II High-Risk Registry Study (n=78) evaluates device in high-risk patients with moderate-to-severe or severe chronic MR

Oct. 2008
ACCESS EU post-approval study

Jan. 2009
REALISM continued access (n=899)

March 2012
5,000 patients worldwide

July 2013
MitraClip® available in U.S.

Oct. 2013
>25,000 patients worldwide

August 2015
>25,000 patients worldwide

July 2013
10,000 patients worldwide

March 2012
10,000 patients worldwide


Clinical Results Demonstrate the Safety and Efficacy of MitraClip® Therapy

The Procedure

The MitraClip® device is a percutaneously implanted mechanical clip. It grasps and coapts the mitral valve leaflets, resulting in fixed approximation of the mitral leaflets throughout the cardiac cycle. The procedure does not require arresting the heart or cardiopulmonary bypass.

1. The Steerable Guide Catheter is inserted into the femoral vein and advanced across a transseptal puncture into the left atrium.
2. The Clip Delivery System is advanced through the Guide into the left atrium and the Clip is placed over the MR jet.
3. The MitraClip® device is advanced across the mitral valve and into the ventricle. It is then pulled back to grasp the leaflets.
4. After successful placement of the device and optimal MR reduction has been achieved, the catheters are removed.

The MitraClip® Procedure
- Allows for real-time MR assessment
- Ability to reposition clip for optimal MR reduction

Before Procedure
After Procedure

July 2003
EVEREST I study (n=55) evaluates preliminary safety and effectiveness

August 2005
EVEREST II Randomized Control Trial (n=279) compares PMVR to surgery

Feb. 2007
EVEREST II High-Risk Registry Study (n=78) evaluates device in high-risk patients with moderate-to-severe or severe chronic MR

Oct. 2008
ACCESS EU post-approval study

Jan. 2009
REALISM continued access (n=899)

March 2008
MitraClip® receives CE Mark

Sept. 2008
First commercial site opened

2012  2013  2014  2015

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Further Reading:
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Connect with Your Nearest MitraClip® Therapy Center

Do you have patients who could benefit from this important treatment option? Screening for TMVR and referring to MitraClip® therapy could change your patients’ lives.6,8

* Worldwide data includes experience with FMR patients. The U.S. FDA approved indication is for DMR patients only. OUS experience with FMR represents an indication broader than the U.S. FDA approved indication.

**MITRACLIP CLIP DELIVERY SYSTEM
INDICATION FOR USE**

The MitraClip Clip Delivery System is indicated for the percutaneous reduction of significant symptomatic mitral regurgitation (MR ≥ 3+) due to primary abnormality of the mitral apparatus [degenerative MR] in patients who have been determined to be at prohibitive risk for mitral valve surgery by a heart team, which includes a cardiac surgeon experienced in mitral valve surgery and a cardiologist experienced in mitral valve disease, and in whom existing comorbidities would not preclude the expected benefit from reduction of the mitral regurgitation.

**CONTRAINDICATIONS**
The MitraClip Clip Delivery System is contraindicated in DMR patients with the following conditions:

- Patients who cannot tolerate procedural antiocoagulation or post procedural anti-platelet regimen
- Active endocarditis of the mitral valve
- Rheumatic mitral valve disease
- Evidence of intracardiac, inferior vena cava (IVC) or femoral venous thrombus

**WARNINGS**

- DO NOT use MitraClip outside of the labeled indication.
- Treatment of non-prohibitive risk DMR patients should be conducted in accordance with standard hospital practices for surgical repair and replacement.

- MitraClip is intended to reduce mitral regurgitation. The MitraClip procedure is recommended to be performed when an experienced heart team has determined that reduction of MR to ≤2+ is reasonably expected following the MitraClip. If MR reduction to ≤2+ is not achieved, the benefits of reduced symptoms and hospitalizations, improvement of life, and improvement of LV remodeling expected from MitraClip may not occur.

- The MitraClip Device should be implanted with sterile techniques using fluoroscopy and echocardiography (e.g., transesophageal [TEE] and transthoracic [TTE]) in a facility with on-site cardiac surgery and immediate access to a cardiac operating room.

- Read all instructions carefully. Failure to follow these instructions, warnings and precautions may lead to device damage, user injury or patient injury. Use universal precautions for biohazards and sharps while handling the MitraClip System to avoid user injury.

- Use of the MitraClip should be restricted to those physicians trained to perform invasive endovascular and transseptal procedures and those trained in the proper use of the system.

- The Clip Delivery System is provided sterile and designed for single use only. Cleaning, re-sterilization and/or reuse may result in infections, malfunction of the device or other serious injury or death.

- Inspect all product prior to use. DO NOT use if the package is opened or damaged.

**PRECAUTIONS**

- **Patient Selection:**
  - Prohibitive risk is determined by the clinical judgment of a heart team, including a cardiac surgeon experienced in mitral valve surgery and a cardiologist experienced in mitral valve disease, due to the presence of one or more of the following documented surgical risk factors:
    - 30-day STS predicted operative mortality risk score of
      - ≥8% for patients deemed likely to undergo mitral valve replacement or
      - ≥6% for patients deemed likely to undergo mitral valve repair.
      - Porcelain aorta or extensively calcified ascending aorta.
  - Frailty (assessed by in-person cardiac surgeon consultation)
  - Hostile chest
  - Severe liver disease / cirrhosis (MELD Score ≥12)
  - Severe pulmonary hypertension (systolic pulmonary artery pressure >2/3 systemic pressure)
  - Unusual extenuating circumstance, such as right ventricular dysfunction with severe tricuspid regurgitation, chemotherapy for malignancy, major bleeding diathesis, immobility, AIDS, severe dementia, high risk of aspiration, internal mammary artery (IMA) at high risk of injury, etc.
  - Evaluable data regarding safety or effectiveness is not available for prohibitive risk DMR patients with an LVEF < 20% or an LVEF >60mm. MitraClip should be used only when criteria for clip suitability for DMR have been met.
  - The major clinical benefits of MitraClip are reduction of MR to ≤2+ resulting in reduced hospitalizations, improved quality of life, reverse LV remodeling and symptomatic relief in patients who have no other therapeutic option. No mortality benefit following MitraClip therapy has been demonstrated.
  - The heart team should include a cardiac surgeon experienced in mitral valve surgery and a cardiologist experienced in mitral valve disease and may also include appropriate physicians to assess the adequacy of heart failure treatment and valvular anatomy.
  - The heart team may determine an in-person surgical consult is needed to complete the assessment of prohibitive risk. The experienced mitral valve surgeon and heart team should take into account the outcome of this surgical consult when making the final determination of patient risk status.
  - For reasonable assurance of device effectiveness, pre-procedural evaluation of the mitral valve and underlying pathologic anatomy and procedural echocardiographic assessment are essential.
  - The inside of the outer pouch is not a sterile barrier. The inner pouch within the outer pouch is the sterile barrier. Only the contents of the inner pouch should be considered sterile. The outside surface of the inner pouch is NOT sterile.
  - Note the “Use by” date specified on the package.

**POSSIBLE COMPLICATIONS AND ADVERSE EVENTS**

- The following ANTICIPATED EVENTS have been identified as possible complications of the MitraClip procedure.
  - Allergic reaction (anesthetic, contrast, Heparin, nickel alloy, latex).
  - Aneurysm or pseudo-aneurysm: Arterial or venous.
  - Arterial or venous injury.
  - Pericardial effusion.
  - Chordal entanglement/rupture.
  - Coagulopathy.
  - Conversion to standard valve surgery: Death.
  - Deep venous thrombosis (DVT): Dislodgement of previously implanted devices.
  - Device embolization associated with anticoagulation agents: Contrast media.
  - Dyskinesia.
  - Dyspnea.
  - Edema.
  - Embolism (air, thrombus).
  - Esophageal irritation.
  - Esophageal perforation or stricture.
  - Failure to recover mitral valve component(s).
  - Intraoperative and/or postoperative infection, such as sepsis or soft tissue abscess.
  - Known or suspected unstable angina or myocardial infarction within the last 2 weeks could increase the procedural morbidity and mortality, due to increased hemodynamic stress secondary to general anesthesia.
  - Patients with active infection have an increased risk of developing an intraoperative and/or postoperative infection, such as sepsis or soft tissue abscess.
  - Known or suspected left atrial myxoma could result in thromboembolism and tissue injury due to difficulty with device positioning.
  - Recent cerebrovascular event (CVA) may increase the procedural morbidity associated with a transcatheter intervention, such as recurrent stroke.

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Prior to use, please reference the Instructions for Use at www.abbottvascular.com/ifu for more information on indications, contraindications, warnings, precautions, and adverse events.