

Patient name
optional

AVIATOR ID

FORM 1 | HOSPITALIZATION

Gender

Date of Birth
or Age

Patient ID
local hospital

Version 8.0 (06-12-2016)

PREOPERATIVE

Main reason for referral

- AV regurgitation
- Ascending aorta

if aneurysm:

- Root
- Tubular aorta
- Arch

Max diameter

_____ mm

- AV mixed disease (*congenital*)

AV endocarditis No Yes, active Yes, healed

Aortic dissection No Yes, acute Yes, chronic

Rheumatic disease No Yes

Height and Weight _____ cm _____ kg

NYHA class I II III IV

Rhythm SR AF PM Other

if other, specify:

Previous cardiac surgery Yes No

LVEF Good (>50%) Moderate (31%-50%) Poor (21%-30%) Very poor (20% or less)

Information to connect this patient to the medical registry (AIDA) i.a.

Enrolled in AIDA Yes No Unknown

if yes: AIDA ID _____

COPD Yes No

IDDM Yes No

Dialysis dependency Yes No

Poor mobility Yes No

Extracardiac arteriopathy Yes No

Recent MI Yes No

Critical state Yes No

Creatinine _____ umol/l _____ mg/dl

Pulmonary hypertension No PAP (<30 mmHg) Moderate (31-55 mmHg) Severe (>55mmHg)

Connective Tissue Disease Yes No

CTD (gene i.a.) _____

Urgency of operation Elective Urgent

Intention to repair the valve based on pre-op echo findings Yes No Uncertain

OPERATIVE

Date of Surgery _____

Surgeon _____

Is there a proctor Yes No

Hegar dilatator size _____ mm

Aortic valve

- Tricuspid
- Bicuspid
- Unicuspid
- Quadricuspid

if bicuspid:

Fused cusps

- RC - LC
- RC - NC
- NC - LC

Raphe type

- Typo 0 (no raphe)
- Type 1 (one raphe)

Commissural orientation

_____ degrees

Cusp analysis

Normal Prolapse Fenestration Perforation Calcification Retraction Vegetation Geometric height (mm)

	Normal	Prolapse	Fenestration	Perforation	Calcification	Retraction	Vegetation	Geometric height (mm)
LC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
RC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
NC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fused	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Uni/Res*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

* Uni = Unicuspid valve; Res = Residual cusp in case of Quadricuspid valve.

Comments (cusp repair) _____

Intention to repair (*based on cusp analysis*) Yes No

Valve sparing/repair Yes No

- Isolated valve repair
- Tubular aorta replacement ± valve repair
- Partial root replacement (1-2 sinus) ± valve repair
- Valve sparing root replacement ± valve repair
 - AV reimplantation (David)
 - Root remodeling (Yacoub)

Valve replacement (repl.) Yes No

- Isolated valve repl.
 - Tubular aorta + valve repl.
 - Root + valve repl.
- if valve replacement, specify:*
- Mechanical proth.
 - Bioprosthesis
 - Homograft
 - Ross

if graft, specify:

Specify graft type and size Straight graft Sinus graft _____ mm

Cusp repair

	No cusp repair	Central plicating stitches	Cusp resection	Running suture (free edge)	Decalcification	Patch reconstruction
LC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fused	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uni/Res*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments (cusp repair) _____

if bicuspid: Commissural orientation post repair no adjustment performed adjusted to a symmetrical orientation

Effective height measured with caliper Yes No

Annuloplasty Yes No

- External ring Extra aortic © Coroneo Inc
Brand & size Dacron _____ mm Other _____ mm
- Internal ring _____ mm
- Suture annuloplasty _____ mm
- STJ ring _____ mm
- Cabrol stitches L/R R/N L/N
- Other _____

if patch, specify type:

- Autologous pericardium (*glutaraldehyde*)
- Fresh autologous pericardium
- Xeno pericardium (*glutaraldehyde*)
- Other _____

patch was used for:

- Cusp belly
- Commissural reconstruction
- Cusp extension

Additional procedures performed Yes No

- CABG Aortic (hemi) arch
- Mitral valve Other _____
- MAZE (any form)

Duration (first) crossclamping _____ min

More than one clamp session Yes No

- if yes, main reason:*
- And fill in the "Additional Clamp Session Form"*
- Regurgitation Ischemia Other, precise _____
 - Stenosis Paravalvular leak _____
 - Bleeding Suture dehiscence _____

COMPLICATIONS

AV related reintervention Yes No

Date _____

- Type
- Reoperation → fill in a new OPERATIVE form
 - Percutaneous intervention

Procedure _____

- Main reason Regurgitation Stenosis Aorta Endocarditis Other, precise _____
- Type of valve dysfunction
- Structural** → Intrinsic to valve leaflets: wear, fracture, poppet escape, calcification, leaflet tear, stent creep, suture line disruption of prosthetic valve, new chordal rupture, leaflet disruption, or leaflet retraction of a repaired valve.
 - Non Structural** → Not intrinsic to valve leaflets: entrapment by pannus, tissue, or suture; paravalvular leak; inappropriate sizing or positioning; residual leak or obstruction after valve implantation or repair; and clinically important intravascular hemolytic anemia; technical errors, dilatation of the sinotubular junction, or dilatation of the valve annulus.

Reoperation non AV related Yes No

- Bleeding/tamponade Date _____
- Mediastinitis Date _____
- Other cardiac Precise & date _____
- Non cardiac Precise & date _____

Embolism No Stroke TIA Peripheral embolism specify _____

PM implantation Yes No *if yes, reason:* AV block Other

STATUS AT DISCHARGE

- Alive**
Discharge date _____
Rhythm SR AF PM Other _____
Antiplatelets Yes No
Oral anticoag. Yes No
- Death**
Mortality date _____
Cause of death Valve related Non cardiac Other cardiac Sudden, unexplained
- Comment _____

room for questions, remarks etc.

Patient name
optional

AVIATOR ID

FORM 2 | ECHO

Gender

 Date of Birth
 or Age

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local hospital

Version 8.0 (06-12-2016)

	PRE OP (TTE)	INTRA OP (TEE) pre repair	INTRA OP (TEE) post repair	AT DISCHARGE (TTE)	AT DISCHARGE (TEE)
EF (%) <i>or</i>					
LVEF (grade) ¹ 1 Good; 2. Moderate; 3. Poor; 4. Very poor.					
LVEDD (mm)					
LVESD (mm)					
Aortic valve regurgitation ² grade 0 / 1 / 2 / 3 / 4					
Jet direction 1 Central; 2. Eccentric;					
Coaptation height / length (mm)					
Effective height (mm)					
Ao mean gradient (mm/Hg)					
Annulus (mm) <i>Systole</i>					
Sinus (mm) <i>Diastole</i>					
STJ (mm) <i>Diastole</i>					
Tubular aorta (mm) <i>Diastole</i>					

Footnotes:

- If the EF was not measured, one of the following grades should be filled in for LVEF:
 1. Good > 50%; 2. Moderate 31%-50%; 3. Poor 21%-30%; 4. Very poor ≤ 20%.
- The grade of aortic regurgitation should be one of the following categories:
 Grade 0 none or trivial; Grade 1 mild: VC < 3; ERO < 10; RVol < 30; Grade 2 mild to moderate: ERO 10-19; RVol 30-44; Grade 3 moderate to severe: ERO 20-29; RVol 45-59; Grade 4 severe: VC > 6; ERO > 30; RVol > 60.

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FORM 3 | ADDITIONAL CLAMP SESSION

Gender

Date of Birth
or Age

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local hospital

Version 8.0 (06-12-2016)

➡ Clamp session number

Valve sparing/repair

Yes No

- Isolated valve repair
- Tubular aorta replacement ± valve repair
- Partial root replacement (1-2 sinus) ± valve repair
- Valve sparing root replacement ± valve repair
 - AV reimplantation (David)
 - Root remodeling (Yacoub)

Specify graft type and size

Straight graft _____ mm
 Sinus graft

Valve replacement (repl.)

Yes No

- Isolated valve repl. *if valve replacement, specify:*
- Valve + tubular aorta repl. Mechanical proth. Homograft
- Root repl. ± valve repl. Bioprosthesis Ross

if patch, specify type:

- Autologous pericardium (*glutaraldehyde*)
- Fresh autologous pericardium
- Xeno pericardium (*glutaraldehyde*)
- Other _____

patch was used for:

- Cusp belly
- Commissural reconstruction
- Cusp extension

Cusp repair

	No cusp repair	Central plicating stitches	Cusp resection	Running suture (free edge)	Decalcification	Patch reconstruction
LC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fused	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uni/Res*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments (cusp repair)

if bicuspid: Commissural orientation post repair

- no adjustment performed
- adjusted to a symmetrical orientation

Aortic annulo/STJ plasty

Yes No

External ring
Brand & size

Extra aortic © Coroneo Inc
 Dacron _____ mm
 Other _____ mm

Internal ring
Brand & size

_____ mm

Suture annuloplasty
Brand & hegar size

_____ mm

STJ ring
Brand & size

_____ mm

Cabrol stitches

L/R R/N L/N

Other _____

Additional procedures performed

Yes No

- CABG
- Mitral valve
- MAZE (any form)
- Aortic (hemi) arch
- Other _____

Duration (first) crossclamping

_____ min

More than one clamp session

Yes No

if yes, main reason:

And fill in the "Additional Clamp Session Form"

- Regurgitation
- Stenosis
- Bleeding
- Ischemia
- Paravalvular leak
- Suture dehiscence
- Other, precise _____

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FORM 4 | FOLLOW-UP

Gender

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Follow-up date _____

Childbirth Yes No

NYHA class I II III IV

Date _____

Rhythm SR AF PM Other

Medication

if other, specify:

Antiplatelets Yes No

Oral anticoag. Yes No

COMPLICATIONS SINCE LAST FOLLOW-UP

AV related reintervention Yes No

Date _____

Type

Reoperation → fill in a new OPERATIVE form

Percutaneous intervention

Procedure _____

Main reason

Type of valve dysfunction

Regurgitation

Structural → Intrinsic to valve leaflets: wear, fracture, poppet escape, calcification, leaflet tear, stent creep, suture line disruption of prosthetic valve, new chordal rupture, leaflet disruption, or leaflet retraction of a repaired valve.

Stenosis

Aorta

Endocarditis

Non Structural → Not intrinsic to valve leaflets: entrapment by pannus, tissue, or suture; paravalvular leak; inappropriate sizing or positioning; residual leak or obstruction after valve implantation or repair; and clinically important intravascular hemolytic anemia; technical errors, dilatation of the sinotubular junction, or dilatation of the valve annulus.

Other, precise

Other cardiac reoperation Yes No

Date _____

Precise _____

Aorta complication (*thoracic or abdominal*) Yes No

Date _____

Precise _____

AV endocarditis (*non operated*) Yes No

Date _____

AV thrombosis (*non operated*) Yes No

Date _____

Embolism No Stroke TIA Peripheral embolism

Specify _____

Date _____

Major bleeding Yes No

Date _____

PM implantation Yes No

Date _____

Reason AV block Other

SURVIVAL

Death Yes No

Date _____

Cause of Death

Valve related Non cardiac

Other cardiac Sudden, unexplained death

Comment

ECHO

TTE

TEE

	TTE	TEE
EF (%) <i>or</i>		_____
LVEF (grade) ¹ 1 Good; 2. Moderate; 3. Poor; 4. Very poor.		_____
LVEDD (mm)		_____
LVESD (mm)		_____
Aortic valve regurgitation ² grade 0 / 1 / 2 / 3 / 4		_____
Jet direction 1 Central; 2. Eccentric;		_____
Coaptation height / length (mm)		_____
Effective height (mm)		_____
Ao mean gradient (mm/Hg)		_____
Annulus (mm) <i>Systole</i>		_____
Sinus (mm) <i>Diastole</i>		_____
STJ (mm) <i>Diastole</i>		_____
Tubular aorta (mm) <i>Diastole</i>		_____

Footnotes:

- If the EF was not measured, one of the following grades should be filled in for LVEF: 1. Good > 50%; 2. Moderate 31%-50%; 3. Poor 21%-30%; 4. Very poor ≤ 20%.
- The grade of aortic regurgitation should be one of the following categories: Grade 0 none or trivial; Grade 1 mild: VC <3, ERO <10, RVol <30; Grade 2 mild to moderate: ERO 10-19, RVol 30-44; Grade 3 moderate to severe: ERO 20-29, RVol 45-59; Grade 4 severe: VC >6, ERO >30, RVol >60.