

Patient name

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 _____ mm 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

AVIATOR ID

FORM 2 | ECHO

Gender

 Date of Birth
or Age

 Patient ID
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.

➡ 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 mm

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
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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 Date of Birth or Age Patient ID local hospital

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Follow-up date

NYHA class I II III IV

Rhythm SR AF PM Other
if other, specify:

Childbirth Yes No
Date

Medication
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 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.
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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 (%) or		
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) Systole		
Sinus (mm) Diastole		
STJ (mm) Diastole		
Tubular aorta (mm) Diastole		

Footnotes:
1. 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%.
2. 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.