

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.

	PRE OP (TTE)	INTRA OP (TEE) pre repair	INTRA OP (TEE) post repair	AT DISCHARGE (TTE)	AT DISCHARGE (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) <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
 Valve replacement (repl.) 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)
- Isolated valve repl. *if valve replacement, specify:*
 Mechanical proth. Homograft
- Valve + tubular aorta repl. Bioprosthesis Ross
- Root repl. ± valve repl.

 Specify graft type and size Straight graft _____ mm
 Sinus graft _____ mm

if patch, specify type:

- Autologous pericardium (*glutaraldehyde*)
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patch was used for:

- Cusp belly
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Cusp repair	No cusp repair	Central plicating stitches	Cusp resection	Running suture (free edge)	Decalcification	Patch reconstruction
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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 Aortic (hemi) arch
 - Mitral valve Other _____
 - MAZE (any form)
- Duration (first) crossclamping _____ min
- More than one clamp session Yes No
- if yes, main reason:*
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- Regurgitation Ischemia Other, precise
 - Stenosis Paravalvular leak
 - Bleeding Suture dehiscence

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	Type of valve dysfunction
<input type="radio"/> Regurgitation	<input type="radio"/> 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.
<input type="radio"/> Stenosis	
<input type="radio"/> Aorta	<input type="radio"/> 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.
<input type="radio"/> Endocarditis	
Other, precise	

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)		
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Annulus (mm) <i>Systole</i>		
Sinus (mm) <i>Diastole</i>		
STJ (mm) <i>Diastole</i>		
Tubular aorta (mm) <i>Diastole</i>		

Footnotes:

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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