



Hospital \_\_\_\_\_

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Name _____	ID _____
First name _____	Date of birth _____
Address _____	Sex <input type="radio"/> m <input type="radio"/> f
_____	Phone _____
Country _____	

**Inclusion criteria**

- ☐ Planned extraction procedure for at least one transvenous lead with dwell duration  $\geq 12$  months or use of dedicated extraction tools (locking stylet, sheath, snare etc)

**Existing device prior to extraction**

Date of last device operation \_\_\_\_\_ Overall number of prior device operations \_\_\_\_\_

Type of currently implanted device ☐ PM ☐ ICD Number of currently implanted intravasc. leads \_\_\_\_\_

☐ Active RA lead ☐ Active RV lead ☐ Active CS lead

☐ Active conduction system lead ☐ Active epicardial lead (s)

☐ Prior device upgrade

Underlying rhythm  $\geq 40$ /min ☐ yes ☐ no

Prior to extraction			
<b>Clinical characteristics</b>			
Height _____ cm	Weight _____ kg		
<input type="checkbox"/> Atrial Fibrillation			
Chronic renal insufficiency (GFR < 60 ml/min.) <input type="radio"/> none <input type="radio"/> yes <input type="radio"/> hemodialysis			
Comorbidities			
<input type="checkbox"/> COPD	<input type="checkbox"/> Hypertension	<input type="checkbox"/> Diabetes	<input type="checkbox"/> Prior cardiac surgery <input type="checkbox"/> Venous occlusion
CMP <input type="text"/> <input type="text"/> <input type="text"/> CMP other details (if 99 = other) _____			
<b>Echocardiography</b>			
LVEF _____ %			
<input type="checkbox"/> Vegetation			
Tricuspid valve insufficiency <input type="radio"/> none <input type="radio"/> mild <input type="radio"/> moderate <input type="radio"/> severe			
<b>Medication</b>			
Antiaggregation <input type="radio"/> none <input type="radio"/> single <input type="radio"/> dual			
Anticoagulation <input type="radio"/> none <input type="radio"/> NOAC interrupted >48h <input type="radio"/> NOAC continued			
<input type="radio"/> VKA interrupted <input type="radio"/> VKA continued			
<input type="checkbox"/> Heparin bridging			

Lead extraction general information			
Date of intervention _____			
Indication for lead extraction <input type="text"/> <input type="text"/> <input type="text"/> Indication other details (if 99 = other) _____			
Setting	<input type="radio"/> EP lab	<input type="radio"/> Hybrid OR	<input type="radio"/> OR
Anesthesia	<input type="radio"/> conscious sedation		<input type="radio"/> intubation
TEE	<input type="radio"/> none	<input type="radio"/> in room	<input type="radio"/> in situ
Cardiac surgeon	<input type="radio"/> none	<input type="radio"/> informed & stand-by	<input type="radio"/> in the OR
	<input type="radio"/> planned as hybrid procedure		
Heart lung machine	<input type="radio"/> none	<input type="radio"/> informed & stand-by	<input type="radio"/> in the OR
Bridge occlusion balloon	<input type="radio"/> none	<input type="radio"/> prep kit	<input type="radio"/> balloon in situ <input type="radio"/> balloon deployed
Additional intervention during lead extraction <input type="text"/> <input type="text"/> <input type="text"/>			
Additional intervention other details (if 99 = other) _____			
Re-implantation system	<input type="radio"/> none	<input type="radio"/> temporary	<input type="radio"/> permanent transvenous
	<input type="radio"/> permanent leadless		<input type="radio"/> permanent epicardial
Re-implantation device	<input type="radio"/> none	<input type="radio"/> temporary	<input type="radio"/> PM <input type="radio"/> ICD <input type="radio"/> S-ICD <input type="radio"/> leadless
Re-implantation electrodes	<input type="radio"/> none	<input type="radio"/> temporary	<input type="radio"/> VVI <input type="radio"/> DDD <input type="radio"/> CRT <input type="radio"/> leadless <input type="radio"/> CSP
Use of antibiotic envelope	<input type="radio"/> no	<input type="radio"/> yes	
Operator 1 _____		Operator 2 _____	
Total procedure time _____ min		Total fluoro time _____ min	Total fluoro dose _____ cGy x cm <sup>2</sup>

## Details on leads targeted for extraction

Number of leads targeted for extraction \_\_\_\_\_

	Lead 1	Lead 2	Lead 3	Lead 4	Lead 5
Date of implant	_____	_____	_____	_____	_____
Serial number	_____	_____	_____	_____	_____
Manufacturer	_____	_____	_____	_____	_____
Model	_____	_____	_____	_____	_____
Fixation	<input type="radio"/> active <input type="radio"/> passive	<input type="radio"/> active <input type="radio"/> passive	<input type="radio"/> active <input type="radio"/> passive	<input type="radio"/> active <input type="radio"/> passive	<input type="radio"/> active <input type="radio"/> passive
Location of fixation	<input type="radio"/> RA <input type="radio"/> RV <input type="radio"/> CS <input type="radio"/> Cond. system <input type="radio"/> Leadless	<input type="radio"/> RA <input type="radio"/> RV <input type="radio"/> CS <input type="radio"/> Cond. system <input type="radio"/> Leadless	<input type="radio"/> RA <input type="radio"/> RV <input type="radio"/> CS <input type="radio"/> Cond. system <input type="radio"/> Leadless	<input type="radio"/> RA <input type="radio"/> RV <input type="radio"/> CS <input type="radio"/> Cond. System <input type="radio"/> Leadless	<input type="radio"/> RA <input type="radio"/> RV <input type="radio"/> CS <input type="radio"/> Cond. system <input type="radio"/> Leadless
Lead access	<input type="radio"/> left <input type="radio"/> right	<input type="radio"/> left <input type="radio"/> right	<input type="radio"/> left <input type="radio"/> right	<input type="radio"/> left <input type="radio"/> right	<input type="radio"/> left <input type="radio"/> right
Type	<input type="radio"/> pace/sense <input type="radio"/> single-coil <input type="radio"/> dual-coil	<input type="radio"/> pace/sense <input type="radio"/> single-coil <input type="radio"/> dual-coil	<input type="radio"/> pace/sense <input type="radio"/> single-coil <input type="radio"/> dual-coil	<input type="radio"/> pace/sense <input type="radio"/> single-coil <input type="radio"/> dual-coil	<input type="radio"/> pace/sense <input type="radio"/> single-coil <input type="radio"/> dual-coil
Simple traction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Locking stylet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teflon sheath	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laser sheath	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mech. rot. sheath	<input type="radio"/> no <input type="radio"/> Philipps TightRail <input type="radio"/> Cook evolution	<input type="radio"/> no <input type="radio"/> Philipps TightRail <input type="radio"/> Cook evolution	<input type="radio"/> no <input type="radio"/> Philipps TightRail <input type="radio"/> Cook evolution	<input type="radio"/> no <input type="radio"/> Philipps TightRail <input type="radio"/> Cook evolution	<input type="radio"/> no <input type="radio"/> Philipps TightRail <input type="radio"/> Cook evolution
(Select the last sheath used for successful extraction)					
Femoral snaring	<input type="radio"/> No <input type="radio"/> Needle's Eye <input type="radio"/> Goose neck <input type="radio"/> EN snare	<input type="radio"/> No <input type="radio"/> Needle's Eye <input type="radio"/> Goose neck <input type="radio"/> EN snare	<input type="radio"/> No <input type="radio"/> Needle's Eye <input type="radio"/> Goose neck <input type="radio"/> EN snare	<input type="radio"/> No <input type="radio"/> Needle's Eye <input type="radio"/> Goose neck <input type="radio"/> EN snare	<input type="radio"/> No <input type="radio"/> Needle's Eye <input type="radio"/> Goose neck <input type="radio"/> EN snare
Result	<input type="radio"/> compl. success <input type="radio"/> clinical success <input type="radio"/> failure	<input type="radio"/> compl. success <input type="radio"/> clinical success <input type="radio"/> failure	<input type="radio"/> compl. success <input type="radio"/> clinical success <input type="radio"/> failure	<input type="radio"/> compl. success <input type="radio"/> clinical success <input type="radio"/> failure	<input type="radio"/> compl. success <input type="radio"/> clinical success <input type="radio"/> failure
Approach	<input type="radio"/> superior <input type="radio"/> inferior <input type="radio"/> both	<input type="radio"/> superior <input type="radio"/> inferior <input type="radio"/> both	<input type="radio"/> superior <input type="radio"/> inferior <input type="radio"/> both	<input type="radio"/> superior <input type="radio"/> inferior <input type="radio"/> both	<input type="radio"/> superior <input type="radio"/> inferior <input type="radio"/> both

Complications until discharge				
Total duration of hospital stay at the extraction center _____ days				
Death	<input type="radio"/> no	<input type="radio"/> complication of the lead extraction procedure		
	<input type="radio"/> unrelated to extraction	<input type="radio"/> due to the disease which indicated extraction		
SVC laceration	<input type="radio"/> no	<input type="radio"/> yes		
Hemato-/Pneumothorax	<input type="radio"/> no	<input type="radio"/> interventional drainage	<input type="radio"/> surgical drainage	
Cardiac tamponade	<input type="radio"/> no	<input type="radio"/> interventional drainage	<input type="radio"/> surgical drainage	
Lead issue	<input type="radio"/> none	<input type="radio"/> dislocation	<input type="radio"/> perforation	<input type="radio"/> electrical
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> none </div> <div style="width: 50%;"> <input type="checkbox"/> Stroke </div> <div style="width: 50%;"> <input type="checkbox"/> Unplanned conversion to cardiac surgery </div> <div style="width: 50%;"> <input type="checkbox"/> HLM in use </div> <div style="width: 50%;"> <input type="checkbox"/> New severe tricuspid insufficiency </div> <div style="width: 50%;"> <input type="checkbox"/> Groin complication (req. intervention) </div> <div style="width: 50%;"> <input type="checkbox"/> Pulmonary embolism </div> <div style="width: 50%;"> <input type="checkbox"/> Newly elevated hemidiaphragm </div> <div style="width: 50%;"> <input type="checkbox"/> Anesthesia complication </div> <div style="width: 50%;"> <input type="checkbox"/> New diagnosis of thrombosis </div> <div style="width: 50%;"> <input type="checkbox"/> Pocket hematoma (req. intervention) </div> <div style="width: 50%;"> <input type="checkbox"/> Transfusion of &gt;=2 packed red blood cells </div> <div style="width: 50%;"> <input type="checkbox"/> Cardiac decompensation </div> <div style="width: 50%;"> <input type="checkbox"/> SIRS </div> <div style="width: 50%;"> <input type="checkbox"/> other: _____ </div> </div>				

30 days outcome				
Total duration of hospital stay all institutions together _____ days				
<b>Complications occurring between discharge from extraction center to day 30</b>				
<input type="checkbox"/> none	<input type="checkbox"/> Death	<input type="checkbox"/> Pulmonary embolism	<input type="checkbox"/> Stroke	<input type="checkbox"/> Cardiac decompensation
<input type="checkbox"/> other: _____				
Lead issue	<input type="radio"/> none	<input type="radio"/> dislocation	<input type="radio"/> perforation	<input type="radio"/> electrical

## Code List

Clinical characteristics prior to extraction	Lead extraction general information	
<b>CMP</b>	<b>Indication for lead extraction</b>	<b>Additional intervention during lead extraction</b>
01 = none	01 = CIED-related endocarditis without pocket infection	01 = none
02 = ICM	02 = isolated pocket infection	02 = PFO occlusion
03 = DCM	03 = pocket infection with bacteraemia	03 = ASD occlusion
04 = valvular	04 = occult bacteraemia with probable CIED infection	04 = transvenous vegetation aspiration
05 = primary electrical disease	05 = lead dysfunction	05 = PTA
06 = GUCH	06 = upgrade	06 = direct re-implant of new device
99 = other	07 = vascular occlusion	99 = other
	08 = pain	
	99 = other	