

# Patients Preferences for Cardiac Pacemaker Implementation: A Qualitative Study to Investigate Patients' Views Towards Disease and Medical Device Characteristics

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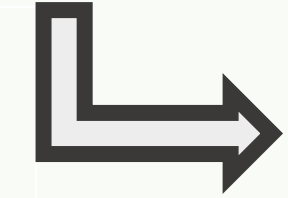
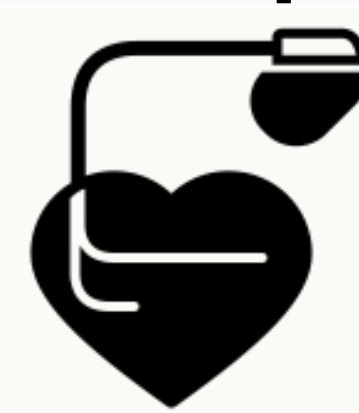
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## Introduction

**Cardiac pacemakers** = treatment for symptomatic bradycardia

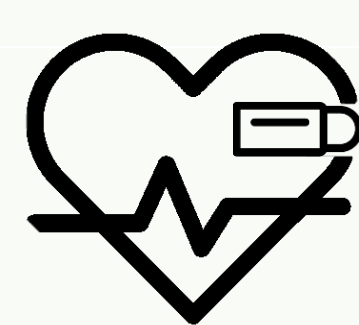


Transvenous (conventional) pacemakers



Device & procedure-related complications

New generation device in recent years



Leadless pacemakers

What about **patients' preferences** for these medical devices?

## Objectives

This study aimed:

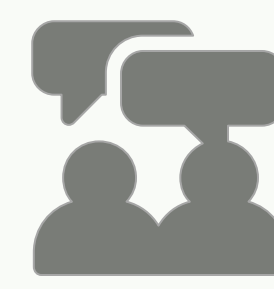


- To understand the **perspectives and needs of patients** indicated for cardiac pacemaker implementation
- To provide **patient-based evidence** derived directly from patients themselves by eliciting patients' preferences

## Methods



**Literature review** of published pacemaker PPS



**Semi-structured interviews** (n=18):

- Open questions
- Scoring and ranking exercise of characteristics
  - Related to the disease (symptom-related characteristics)
  - Related to the treatment with medical device (device & procedure-related characteristics)
  - Overall ranking of most important characteristics



Interviews **transcribed** ad verbatim



**Thematic framework analysis** using NVivo Software

## Results

### Device-related characteristics

Limited risk for long-term device complications

Availability of clinicians' and patients' experiences with device

Latest technology

Limited risk of device malfunctioning

Availability of long-term data on feasibility and safety of replacing device

### Procedure-related characteristics

Long battery lifetime postponing the need for replacement surgery

Short recovery time with less restrictions after surgery

Limited risk for short-term procedure complications

No discomfort at the location of the implantation after surgery

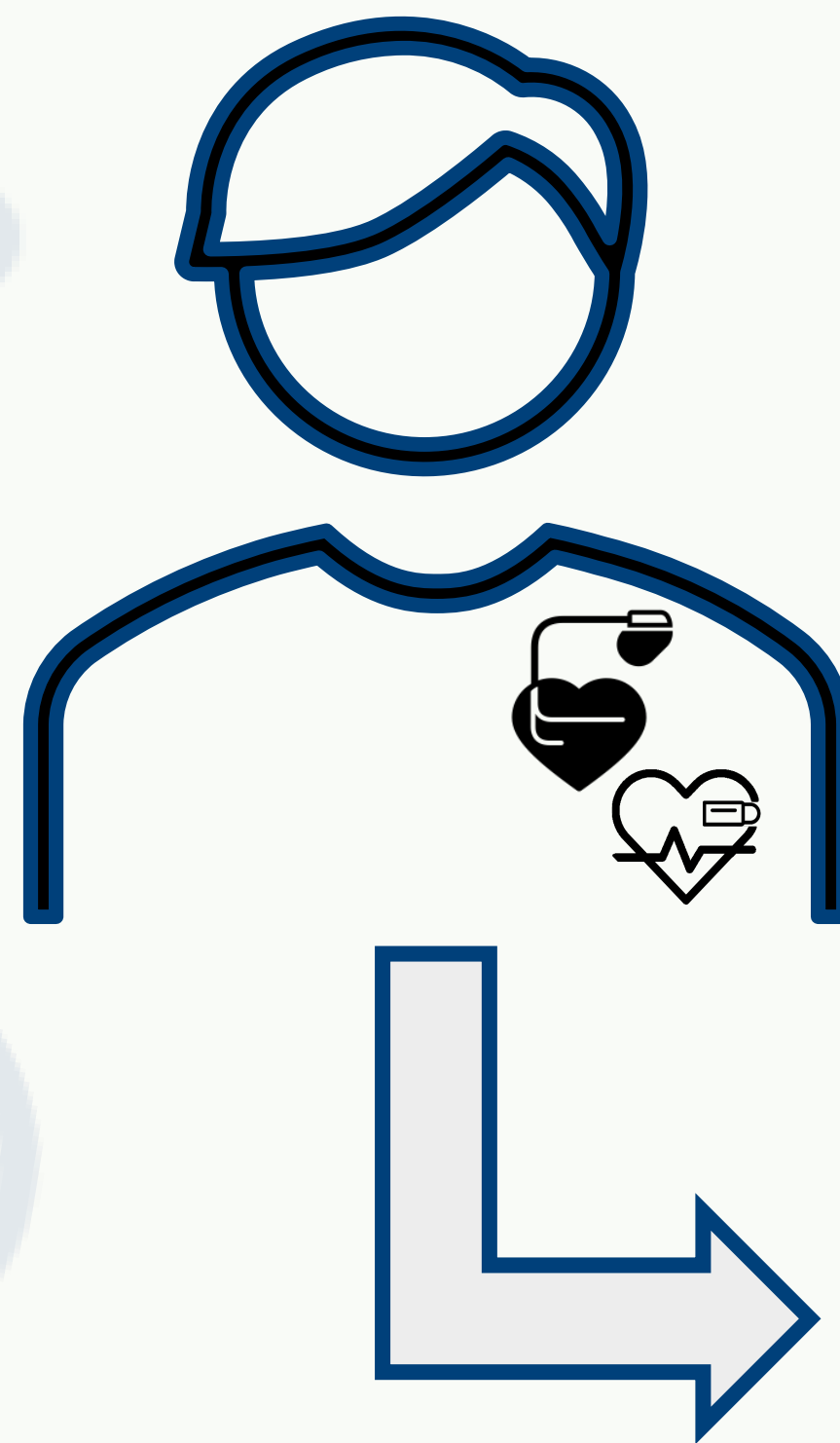
### Symptom-related characteristics

Shortness of breath

Fatigue

Easily tired during physical activities

Heart palpitations



### Overall ranking of most important characteristics

- Long battery lifetime  
Improvements in shortness of breath
- Limited risk for long-term complications
- Improvements in fatigue  
Use of latest device technology
- Improvements in being easily tired during physical activities

## Abbreviations

PPS: Patient Preference Studies

## Acknowledgements

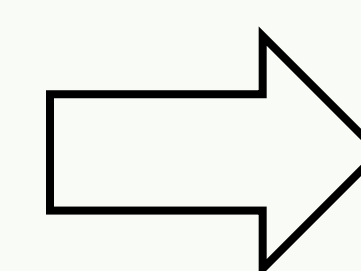
This work is supported by KU Leuven and partly supported by the internal KU Leuven funding C3/22/052.

Abstract of poster



## Conclusion

Patients are open to new pacemaker devices when assured of the battery lifetime and limited risk for long-term complications, with a primary focus on improvements in their quality of life



Tailor decision-making to meet patients' needs and preferences