# Pre-implant animation improves Implantable Loop Recorder Consent: A single center quality improvement project

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## Background

Implantable loop recorders (ILRs) are small cardiac rhythm monitoring devices that require a minor invasive procedure to implant. ILR implants are increasing following recommendations for their use in the NICE guidance for secondary stroke prevention. Implants are often performed by nurse and cardiac scientist specialists with variable levels of patient information provided before consent. A multi-language animation to support patient information before ILR implant was developed (www.explainmyprocedure.com) and we assessed patient understanding of key consent domains before and after introducing the animation into the consent pathway.

#### Methods

Patients having ILR implant in the out-patient clinic were prospectively surveyed on the day of their procedure, before (no animation group) and after (animation group) introducing the animation into the consent pathway. Standard care in the no animation group involved a consultant clinic consultation and referral for the procedure. In the animation group, in addition to standard care, patients were emailed a link to the animation which they could watch in one of 5 languages, as often as needed before the implant.

In the survey, patients responded to 3 questions relating to (i) the quality of information provided, (ii) their understanding of the information and (iii) their involvement in the decision to proceed, each using a 5 point Likert scale. Results were examined by visual inspection and analyzed using Wilcoxon Rank Sum test. An additional 4 questions were asked of the animation group to assess the extent to which the animation supported patient understanding of the procedure, its benefits, risks and alternatives. Patients were asked to chose from one of 3 responses (complete understanding, partial understanding, no understanding).

## Results

Surveys were completed from February 2020- May 2021, with a break in activity due cessation of elective work during the pandemic. A total of 103 consecutive patients were surveyed, 72 in the no animation group and 31 in the animation group. Table 1 shows the patient characteristics. Figure 1 displays the results of the comparative analysis. There was a clear improvement in the patient reported quality of information and understanding (P<0.001 and p=0.004) in the animation group compared with the no animation group, but not for patient involvement (P=0.324). Complete understanding of the procedure, its benefits, risks and alternatives in the animation group was reported in 84%, 87%, 81% and 52% respectively.

## Conclusion

Introduction of a multi-language pre-implant animation into the consent pathway was feasible, supported out-patient implant by non-medical staff and substantially improved patient-reported quality of information and understanding. Patients who watched the animation reported high levels of understanding of the procedure, its benefits, risks and alternatives. Consideration should be given to routinely offering the animation along with all referrals for ILR implant.

#### **Table: Patient Characteristics**

	No animation group	Animation group
Total Number	72	31
Number of men	35 (49%)	16 (52%)
Age (years)	55 ± 19	59 ± 21
Implant indication:		
Syncope/ Dizziness	42 (58%)	16 (51%)
Stroke- AF detection	16 (22%)	6 (19%)
Palpitations	10 (14%)	7 (23%)
Rhythm monitoring	4 (6%)	2 (6%)

p>0.05 for all comparisons

Figure 1: Graphs showing results from patient questionnaire before and after introduction of Explain my Procedure animation before consent for ILR implant



# Figure 2



Reported complete understanding of ILR Procedure, its benefits, risks and alternatives among 31 patients who watched the Explain my Procedure animation before their procedure