

## Using web-based interventions in patients with ICD



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Implantable cardioverter-defibrillators (ICDs) are one of the most effective treatments that is used to prevent sudden cardiac death in patients at risk for potentially lethal ventricular arrhythmias. However, despite the clinical benefits, the risk of developing psychosocial issues is very high ICD patients, including anxiety (reported prevalence 13–38%) and depression (13–33%).

A trial was conducted to compare the efficacy of a web-based intervention (WBI) vs. usual care (UC) for improving psychosocial well-being in ICD patients with elevated psychosocial distress. The study included 118 ICD patients who were suffering from increased anxiety or depression [ $\geq 6$  points on either subscale of the Hospital Anxiety and Depression Scale (HADS)] or reduced QoL [ $\leq 16$  points on the Satisfaction with Life Scale (SWLS)]. The primary outcome was a change in heart-focused fear, depression, and mental QoL. Web-based intervention consisted of 6 weeks' access to a structured interactive web-based programme (group format) including self-help interventions based on cognitive behaviour therapy, a virtual self-help group, and on-demand support from a trained psychologist.

The researchers found no statistically significant difference between the WBI and UC group. The WBI vs. UC group had higher rates of coronary revascularisation, and lower rates of stroke, and amiodarone prescription. 38% of the total sample had comorbid anxiety, 33% had comorbid depression, and in 24% both conditions were present. Low QoL was documented in 23% of patients. Comorbidity for all three criteria was found in 12% of patients. However, there was a non-significant trend in the expected direction. This is the first trial of its kind to demonstrate that WBI can improve important dimensions of psychosocial well-being in ICD patients including anxiety, depression and several aspects of social support and improved self management/coping. It is also the first study to report comorbidity rates for anxiety, depression, and reduced QoL for ICD patients.

Benefits of the WBI were most pronounced at 1 year. The benefits that were observed within the six weeks may have been influenced by the increased availability of overprotective support by family members, which also may have contributed to the longer-term effects. Improvements in self-management, active and passive coping, mobilisation of support, and social support from pre-intervention to 1 year may also have resulted in improvement of depression. Also, the effects of WBI may have become evident only when later events necessitated application of skills learnt in the intervention. These factors could explain why the efficacy of WBI increased from 6 weeks to 1 year.

Although the primary outcome was neutral, the results of this study suggest that WBI can improve important psychosocial well-being dimensions in ICD patients. However, more research is required to further evaluate the use and impact of WBI in ICD patients.

Source: [European Heart Journal](#)

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