Supplementary material

Sterliński M, Przybylski A, Grabowski M, et al. Wearable cardioverter-defibrillator use in clinical settings in Poland: Nationwide observational cohort study. Pol Heart J. 2025.

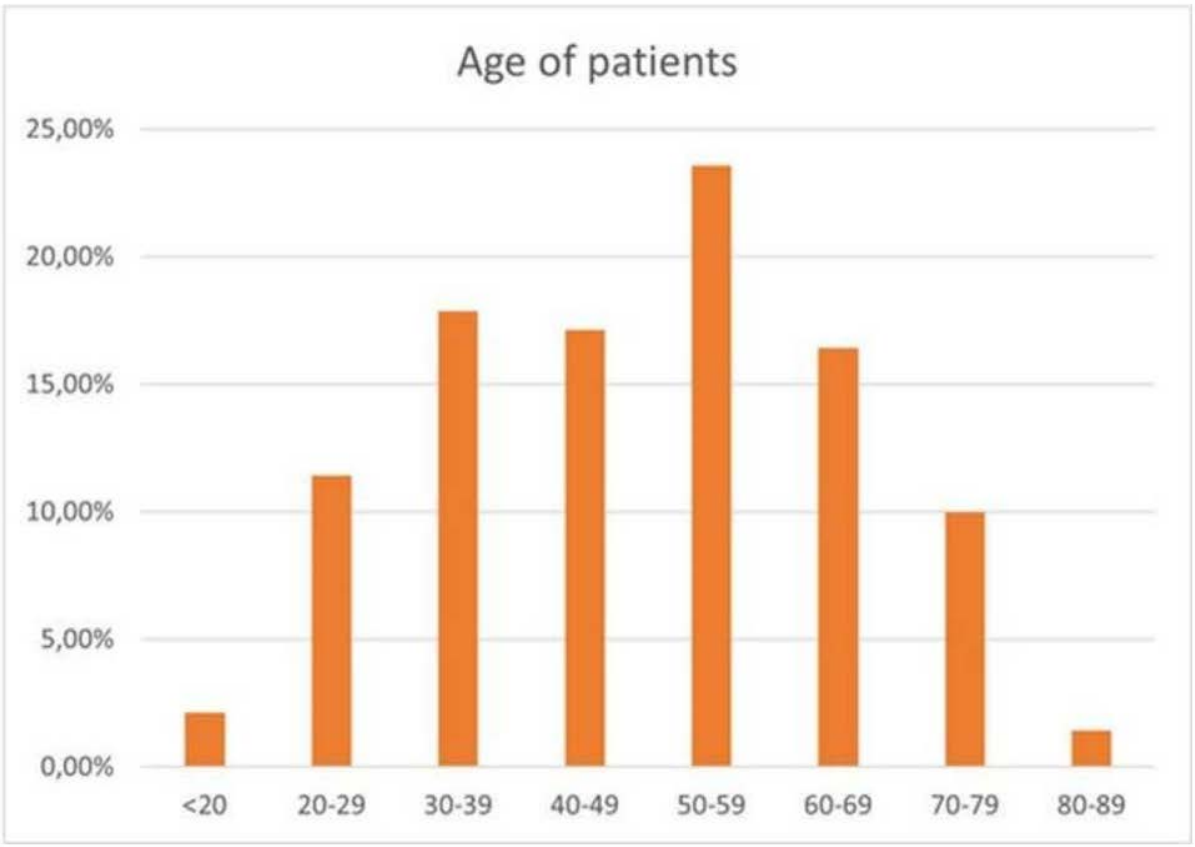

Figure S1. Age distribution of patients who participated in this WCD cohort study. The age distribution represents the Gaussian curve pattern, with most patients being 50–59 years old (25.6%) and the majority of WCD recipients were aged 30–60

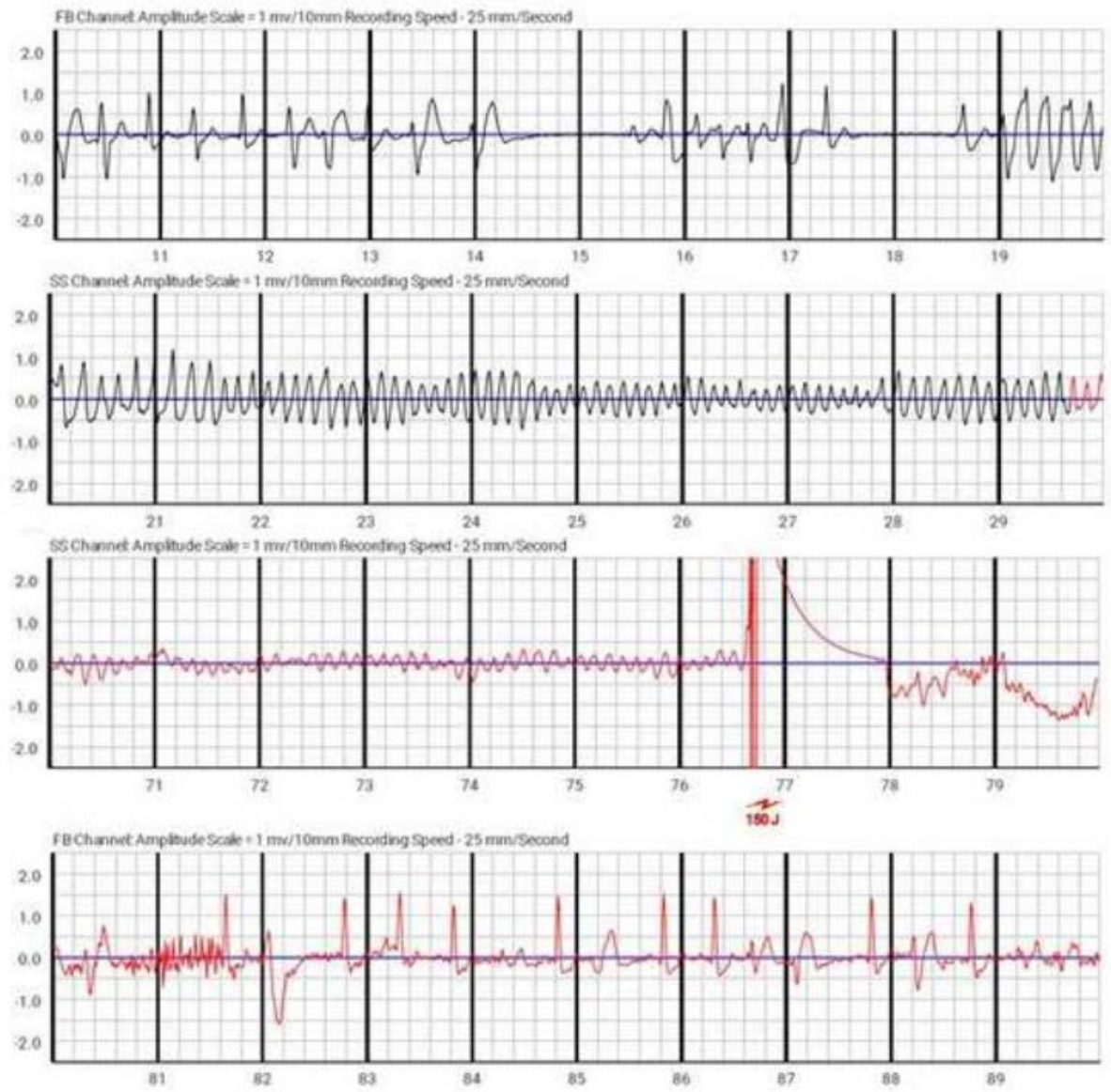

Figure S2. Ventricular fibrillation (VF) was diagnosed and successfully terminated by wearable cardioverter-defibrillator (WCD) in a 28-year-old male with autoimmune myocarditis. Initiation of the arrhythmia, preceded by premature ventricular beats and salvos of non-sustained ventricular tachycardia, VF, and 150 J shock delivered by WCD terminating arrhythmia, are shown (single lead ECG of the event recorded by WCD)

Table S1. Listing of individuals who experienced appropriate WCD therapy with basic demographics, diagnosis and type of indication, LVEF reported at fitting date and days until the first discharge and treated arrhythmia

Number of separate arrhythmic events with appropriate therapies	Gender (M/F)	Age	Diagnosis	Prevention	LVEF at start of protection	Days until shocks		Treated arrhythmia	Shocked arrhythmia frequency/R-R interval
1	M	73	Post-MI	primary	30%	1		fast VT	305/min/197 ms
1	M	50	Post-PCI	PSVAP	39%	20		VT	180/min/300 ms
3	M	28	Myocarditis (autoimmune)	primary	38%	1st	13	VF	>300/min/<200 ms
						2nd	32	2 x VF < 5 min.	
1	F	29	Long QT Syndrome	PSVAP	65%	31		polymorphic VT/VF	>300/min/<200 ms

Abbreviations: LVEF, left ventricular ejection fraction; MI, myocardial infarction; PCI, percutaneous coronary intervention; PSVAP, post sustained ventricular arrhythmia prevention; VF, ventricular fibrillation; VT, ventricular tachycardia

Table S2. The number of patients receiving different forms of medication is shown, along with the number of datapoints available for each of the medications

Medication	**Patients receiving drug upon discharge with WCD**	**Datapoints concerning drug upon discharge with WCD**
Beta-blocker	125 (94%)	133
ACEI/sartans	59 (44.7%)	132
ARNI	74 (56.1%)	132
SGLT-2	89 (67.4%)	132
Diuretic	74 (56.1%)	132
Aldosteron	90 (71.4%)	126
Amiodaron	25 (20.5%)	122
Other AAD	10 (10%)	100

Abbreviations: AAD, antiarrhythmic drugs; ACEI, angiotensin converting enzyme inhibitor; ARNI, angiotensin receptor-neprilysin inhibitor; SGLT-2, sodium-glucose co-transporter 2

Table S3. The percentage of patients from receiving different forms of medication in different sub-groups

Medication	Primary prevention (n=71)		Secondary prevention (n=68)		Patients with rEF (n=93)		Patients with mrEF (n=20)	
	During hospital stay	After hospital discharge	During hospital stay	After hospital discharge	During hospital stay	After hospital discharge	During hospital stay	After hospital discharge
Beta-blocker	47 (66%)	66 (93%)	38 (56%)	64 (94%)	60 (65%)	91 (98%)	13 (65%)	18 (90%)
ACEI/sartans	32 (45%)	32 (45%)	18 (27%)	27 (40%)	31 (33%)	38 (41%)	8 (40%)	11 (55%)
ARNI	25 (35%)	47 (66%)	11 (16%)	29 (43%)	42 (45%)	70 (76%)	2 (10%)	3 (15%)
SGLT-2	27 (38%)	58 (82%)	17 (25%)	41 (60%)	41 (44%)	81 (87%)	4 (20%)	7 (35%)
Diuretic	28 (39%)	51 (72%)	25 (37%)	33 (49%)	48 (52%)	72 (78%)	4 (20%)	5 (25%)
Aldosteron	28 (39%)	57 (80%)	21 (31%)	44 (65%)	48 (52%)	81 (87%)	2 (10%)	8 (40%)
Amiodaron	5 (7%)	14 (20%)	14 (21%)	20 (30%)	6 (7%)	15 (16%)	6 (30%)	5 (25%)
Other AAD	0 (0%)	7 (10%)	4 (6.0%)	0 (0%)	2 (2%)	0 (0%)	1 (5%)	1 (5%)

Data is split between the percentage of patients receiving the WCD for primary and secondary prevention as well as split of patients with a reduced ejection fraction (rEF) and a mildly reduced ejection fraction (mrEF) defined here to be between 35% and 50%

Abbreviations: AAD, antiarrhythmic drugs; ACEI, angiotensin converting enzyme inhibitor; ARNI, angiotensin receptor-neprilysin inhibitor; SGLT-2, sodium-glucose co-transporter 2; WCD, wearable cardioverter-defibrillator

Patients' pathway

Regarding the documentation of the patient pathway, WCD prescription was always done during hospitalization and reported by the patients last hospital department. The patients came to this unit to receive WCD protection mainly from another hospital/department (44.5%) or the patients came from home (41.6%). In rare cases the patient came from an outpatient physician to receive the WCD in the hospital (13.1%). One patient came from rehabilitation unit.

Upon receiving the WCD and being fitted, vast majority of patients were sent home (85.3%). Few patients were sent for rehabilitation or to another hospital (7.4% and 6.6% respectively).

One patient died due to an asystole, wearing WCD, in the site of prescription.

Table S4. The patient pathway. It is shown the percentage of patients were referred from to the center where they received the WCD. It is also shown where patients were sent at hospital discharge upon WCD receival

Patient pathway	Home	Other hospital/department	Outpatient	Rehabilitation
Where the patient was referred from for hospitalization resulting in WCD prescription	41.6%	44.5%	13.1%	0.7%
Where the patient was discharged upon WCD receival	85.3%	6.6%	0%	7.4%