

HEART FAILURE – HOW WILL AN ICD HELP?

Jean Maloney

Arrhythmia Nurse Specialist

Sheffield Teaching Hospitals NHS Trust

DEFINITIONS

Heart Failure

“ A condition in which the heart is unable to pump an adequate amount of blood to the tissues usually resulting in breathlessness, swollen ankles and exhaustion”

Collins English Dictionary

Implantable Cardioverter Defibrillator

“ A battery operated metal device implanted under the skin or muscle with wires directly into or outside of the heart to detect and treat abnormal ventricular rhythms”

Jean Maloney

Causes of Heart Failure

- Myocardial Infarction (heart attack) leading to scarring and increased ventricular workload
- Inherited Conditions
- Virus / Infections
- Chemotherapy
- Hypertension
- Cardiomyopathy
- Cardiac Arrhythmia
- Diabetes
- Heart Valve Disease

Physical Effects of Heart Failure

- Implications of diagnosis – ‘Heart Failure!!!!’
- Implications of ‘pump failure’ – fluid, weight gain, breathlessness, lethargy, cold, impact on other major organs
- Relationship / family issues
- Financial implications
- Medications – side effects, cost
- Potential for new or increased cardiac arrhythmia
 - So how can an ICD help? – Your thoughts??

'ICD is Designed To Save Life in Acute Circumstances'

- Pacemaker
 - To regulate, increase and override disruptive heart rhythms in the atria or ventricles
 - To allow and support medication increases
- Cardiac Resynchronisation Therapy (CRT)
 - To resynchronise the left and right ventricular pumping action
 - To allow the heart to rest and re-model

If We Add A Pacemaker

- Add or increase beta blockers / antiarrhythmic medications
- Can sometimes control and maintain regularity of heart rate
- Increase heart rate leading to increased circulation
- Prevent Syncope (faint or near faint due to low HR and / or B/P)

If We Add CRT

- Hopefully improve the ventricular function
- Hopefully improve and increase circulation
- Hopefully improve quality of life
- Hopefully reduce risk of heart failure and hospital admission
- Hopefully extend life with quality

Psychological Effects Of Heart Failure

- Fear
- Anxiety
- Depression
- Relationship / Family

So how can an ICD help with this? – your thoughts?

So How Can an ICD Help With Heart Failure

- Save life in appropriate circumstances
- Provide Reassurance and safety to patient and family
- ICD with PPM (dual chamber) can override abnormal muscle straining and workload increasing heart rates
- CRTD has potential to improve heart failure
SO why not implant CRTD in all heart failure patients??

Specific Criteria for CRT

- Ventricular systolic dysfunction
- NYHA
- QRS duration
- Potential or established heart failure
- Patient choice
- Must be – or have tried optimum medication

Thank You

Any Questions?