

# **Difficult conversations about ICDs:**

**When is the right time and how can we  
make those conversations easier?**

**Miriam Johnson**

# What's the issue for people with heart failure?

- Treatment of
- They incr
- They h
- They n
- distress
- ICDs used
- still do not ha
- **HRS Expert Consensus** et al Heart Rhythm 2011
- **Palliative Care and Cardiovascular Disease and Stroke: A Policy Statement From the AHA/ASA.** Braun LT et al 2016

“However this communication simply must take place. Instead of serving as a reason to avoid conversation, uncertainty should be a trigger for exploration.”

# Complications during life

- Trial data - 9.1%
  - related to:
    - Access
    - Lead
    - Generator
    - Infection
  - excludes inappropriate shocks
  - excludes psychological morbidity
- Registry data – 3% to 9.5%
  - Lowest in US register
  - Highest in Danish
  - Depends on method of detection
  - Same exclusions

**openheart** A systematic review of ICD complications in randomised controlled trials versus registries: is our 'real-world' data an underestimation?  
2015

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Vivienne A Ezzat, Victor Lee, Syed Ahsan, Anthony W Chow, Oliver Segal, Edward Rowland, Martin D Lowe, Pier D Lambiase

# Complications surrounding death

## “Death and defibrillation: a shocking experience”

- PM device interrogation and chart review
- N =130
- 35% ventricular arrhythmias in the last hour before death,
- 31% received a shock in their last 24 hours, including many with arrhythmia storms,
- some receiving >10 shocks in their final hours.

**Circulation**  
JOURNAL OF THE AMERICAN HEART ASSOCIATION



**Implantable Cardioverter-Defibrillator Therapy Before Death: High Risk for Painful Shocks at End of Life**  
Annika Kinch Westerdahl, Johanna Sjöblom, Anne-Cathrine Mattiasson, Märten Rosenqvist and Viveka Frykman

*Circulation.* 2014;129:422-429; originally published online November 15, 2013;

- 52% of the group had a DNAR order but of these 65% had the device “on” at 24 hours preceding death, and 51% were still “on” 1 hour before death.

# So why don't we talk about it?

## Clinicians:

- Most think conversations should happen
- Ethical misunderstandings
- Fear of taking away “hope”
- Belief can predict shocks and manage them
- Belief that patients understand about their device
- Belief that patients should initiate the conversation
- No time
- Insufficient training re communication skills

## **Circulation: Heart Failure**    **Lost in Translation**

### **Examining Patient and Physician Perceptions of Implantable Cardioverter-Defibrillator Deactivation Discussions**

Michael Mitar, Ana C. Alba, Jane MacIver, Heather Ross, 2012:5: 660-666



### **Barriers to Conversations About Deactivation of Implantable Defibrillators in Seriously Ill Patients Results of a Nationwide Survey Comparing Cardiology Specialists to Primary Care Physicians.** Nathan Goldstein, Elizabeth Bradley, Jessica Zeidman, Davendra Mehta, R. Sean Morrison. *J Am Coll Cardiol.* 2009;54(4):371-373.

# So why don't we talk about it?

## Patients

- don't want to talk about it but don't understand it
- ...cause instantaneous death "committing suicide"
- ...it will always keep them alive
- ... "exclusively benevolent"
- preferred to defer deactivation decisions to their physicians
- conversation unexpected
- as part of an overall conversation about prognosis and treatment planning with clinical team – more likely to consider and agree to "turn off"

## Circulation: Heart Failure

### Lost in Translation

#### Examining Patient and Physician Perceptions of Implantable Cardioverter-Defibrillator Deactivation Discussions

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#### ICD Recipients' Understanding of Ethical Issues, ICD Function, and Practical Consequences of Withdrawing the ICD in the End-of-Life

ANNA STROMBERG, CHRISTINA FLUUR, JENNIFER MILLER, MISOOK L. CHUNG, DEBRA K. MOSER, and INGELA THYLÉN. *PACE* 2014; 00:1–9

#### End-of-life decisions in ICD patients with malignant tumors.

Kobza R, Erne P. *Pacing Clin Electrophysiol.* 2007;30:845–849.

# When and how?



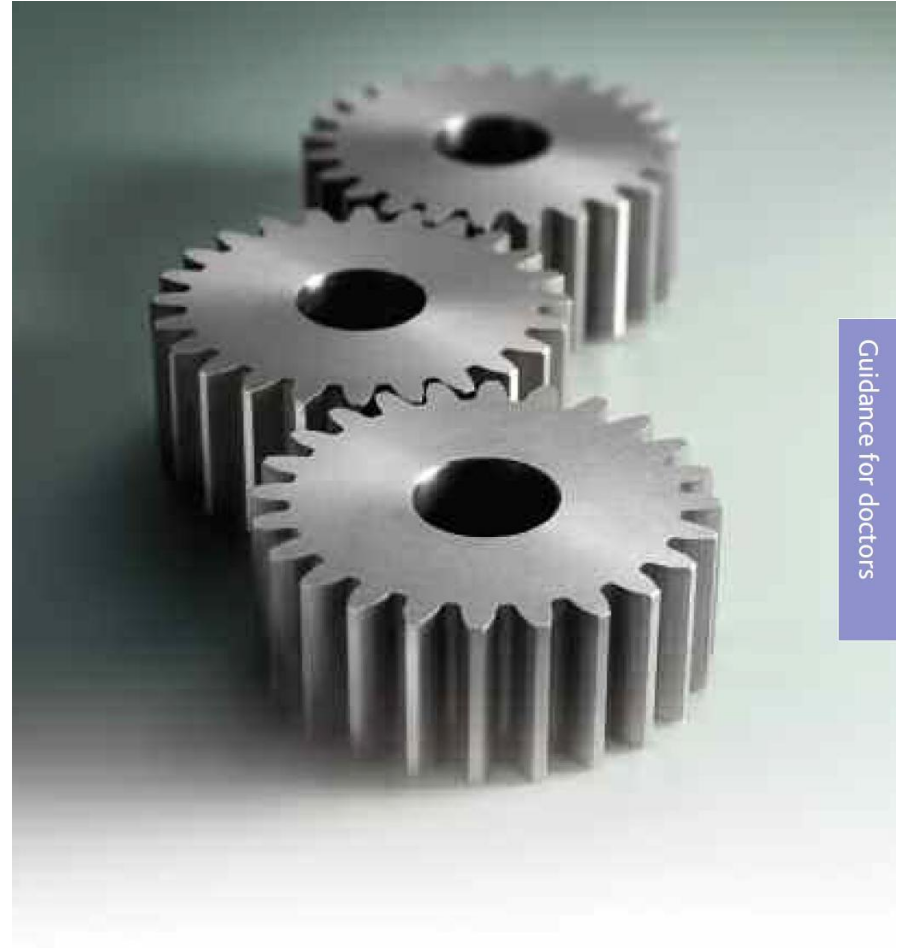
- Is there anything I need to know about an ICD regarding end-stage heart failure or death?

The decision should not be  
“...reactive based on an overdue  
response to suffering immediately  
before death.” (Mitar et al)

## At implantation - explain

- Honestly about complications during life
  - What the ICD can and cannot do
  - There is a risk-benefit balance
  - This will change as the disease changes
  - There will come a time when the balance is about risk without benefit
  - This will be regularly reviewed
  - Review the risk-benefit balance regularly
- 
- DO NOT LET THE CONVERSATION ABOUT DEACTIVATION BE A SHOCK

“You must give patients the information they want or need about: the potential benefits, risks and burdens, and the likelihood of success, for each option;”



Guidance for doctors

Consent: patients  
and doctors making  
decisions together

General  
Medical  
Council

Regulating doctors  
Ensuring good medical practice



# How?

- Be clear about the ethical principles – this is the clinicians' job
  - Legal and morally acceptable
  - Principle of beneficence; dispel misinformation and ensure best risk-benefit balance for the patient
- Take responsibility
- Education and training
  - Develop and implement a conversational protocol for ICD deactivation discussions
- Discuss as part of an overall management plan, including anticipatory care planning, not in isolation
- Take time to identify misinformation and erroneous beliefs of patient and family
- Approach as a series of conversations which start at implantation

# Take home messages

- Physicians over-estimate benefit and underestimate harms
- Patients have serious misconceptions including i) universal benefit, and ii) immediate death on “switching off”
- Harms are significant and common both during life and surrounding death
- It is the clinician’s responsibility to have the conversation(s)
- Conversations should be an *ongoing* part of an overall discussion of disease and management and start at implantation
- Training, education and systems should be in place

# The final word

**Questions:** When is it necessary? How can we make those conversations happen?

**When?** Start as early as possible. Uncertainty is not a bad thing but the appropriate response to uncertainty is to explore.

“...this communication simply must take place. Instead of serving as a reason to avoid conversation, uncertainty should be a trigger for exploration.” AHA 2016

**How to make it easy:** It should never be easy. But there are ways to make it happen.