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Ventricular tachycardia ablation under hemodynamic support

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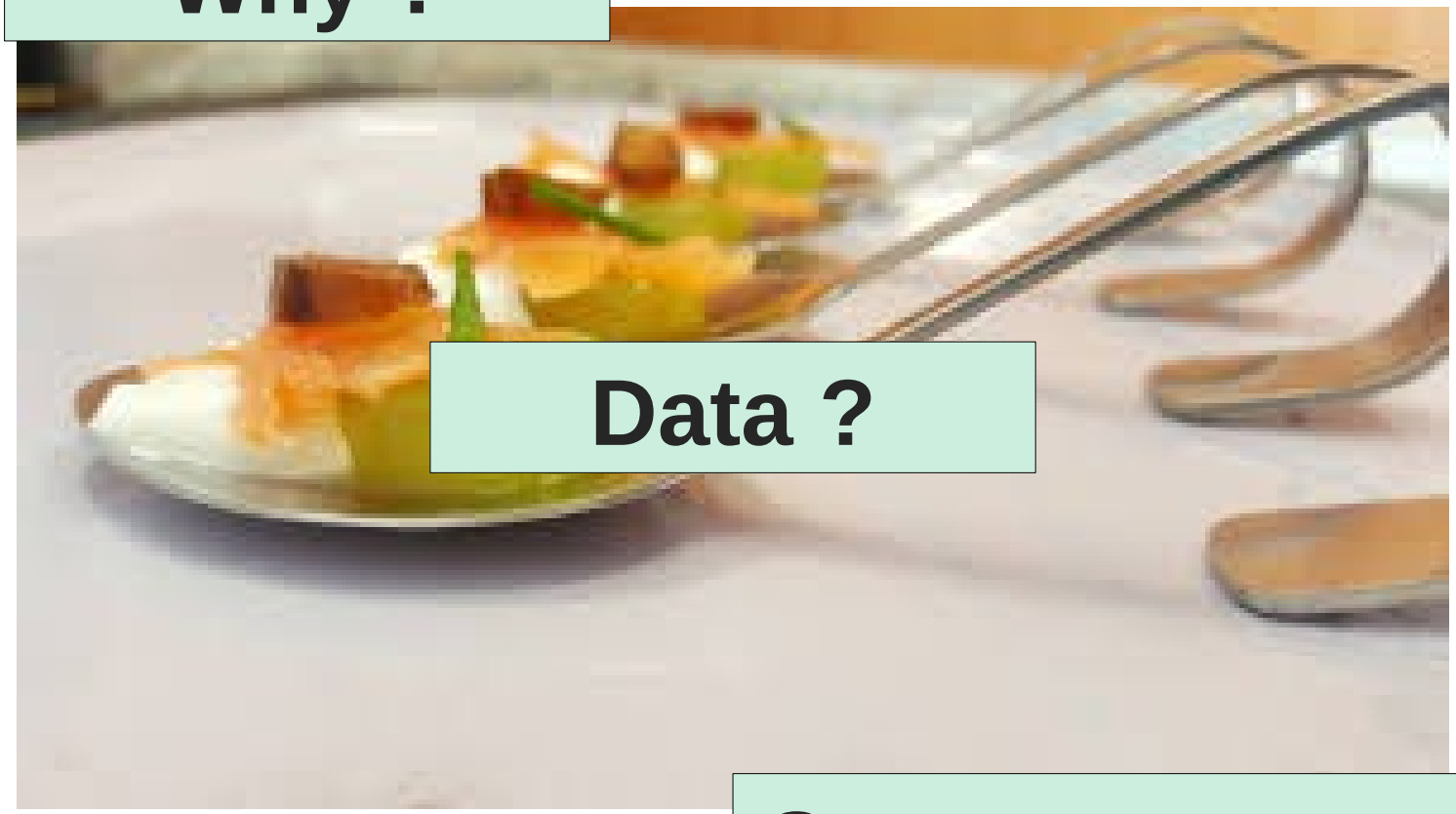
Why ?



Data ?

Consequences ?

Why ?

Catheter ablation for VT

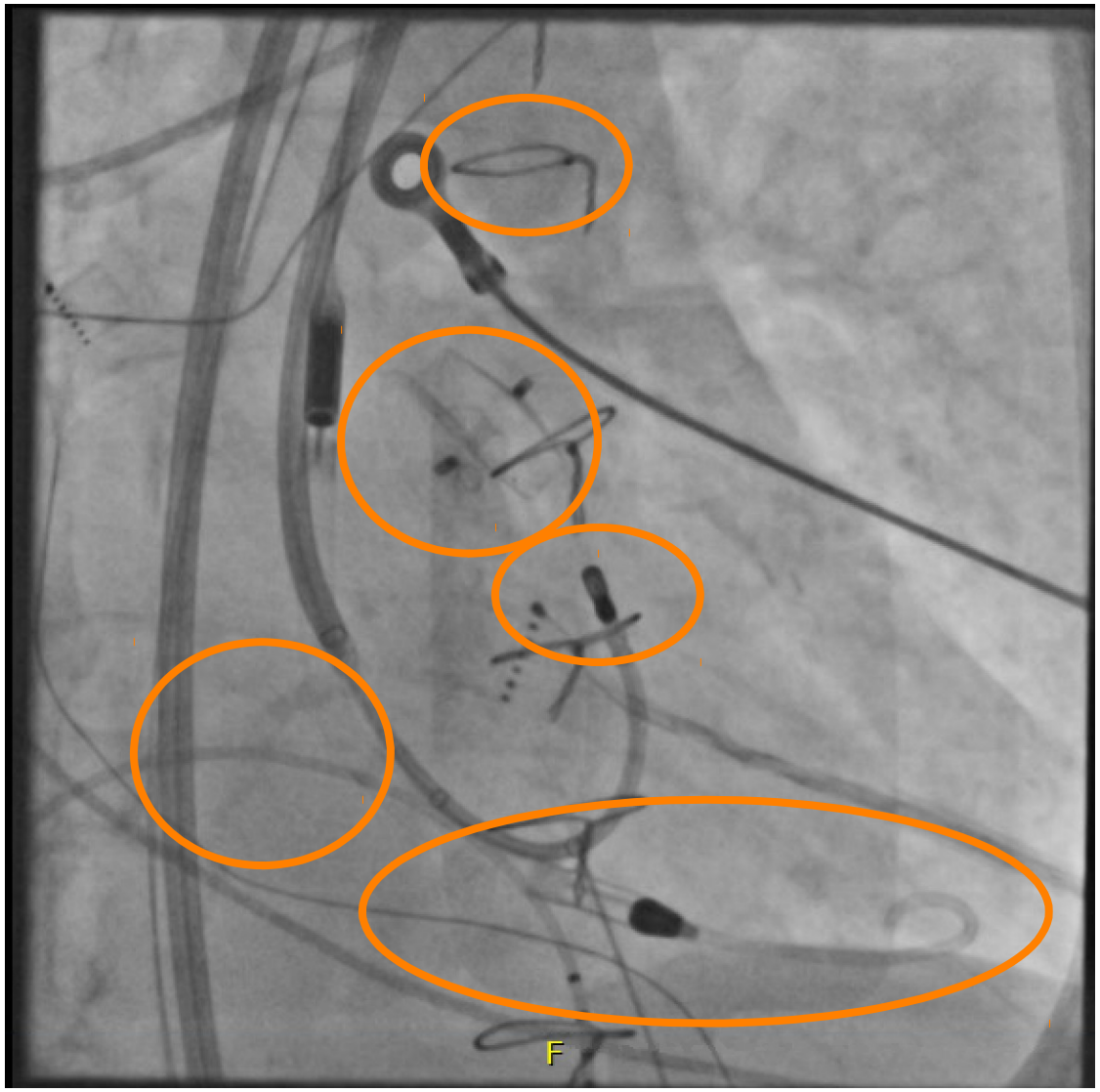
- induction of anesthesia
- programmed ventricular stimulation
- presence of spontaneous and/or mechanically induced VT
- attempts at pace termination
- need for electrical cardioversions
- fluid overload during mapping and ablation

Acute haemodynamic decompensation (AHD)

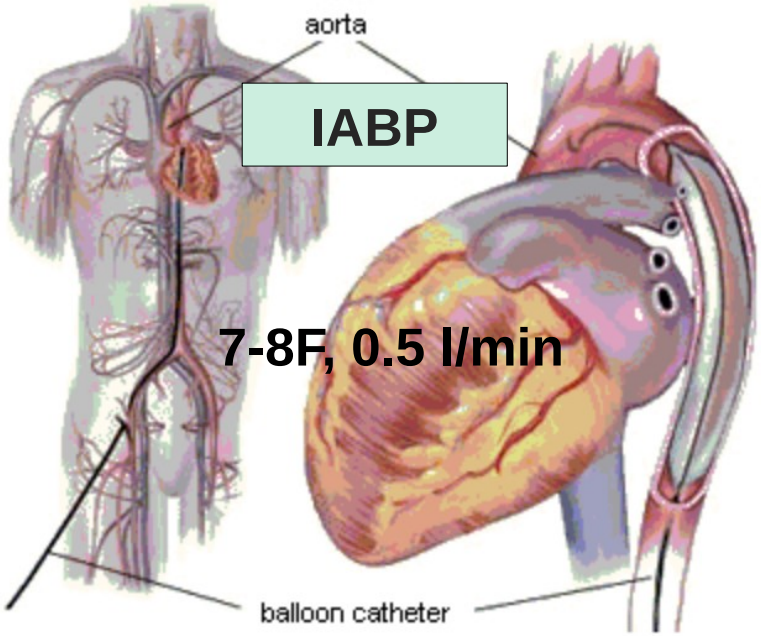
Zeppenfeld K, Stevenson WG. Pacing Clin Electrophyiol 2008
Bohnen M et al. Heart Rhythm 2011
Santangeli P et al. Circulation AE 2015
Santangeli P et al. JACC 2017

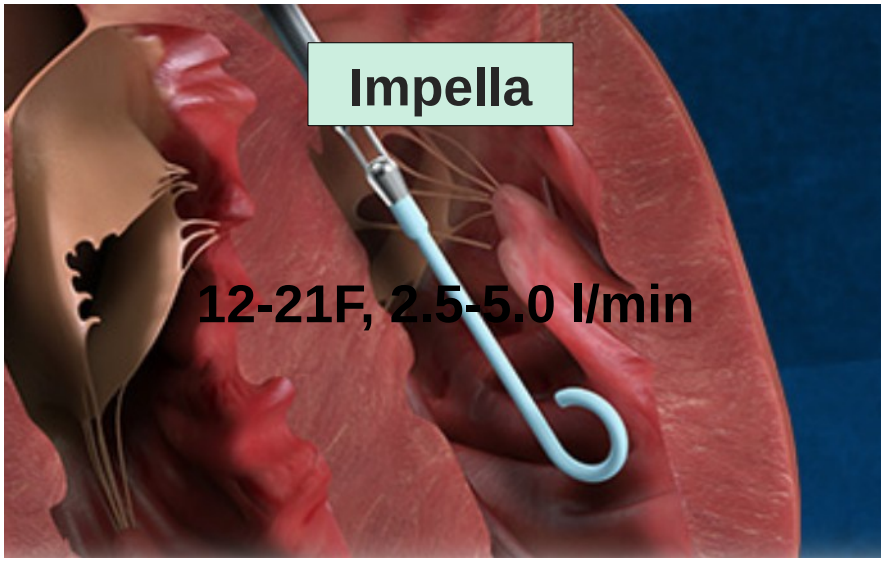
The very sick patient

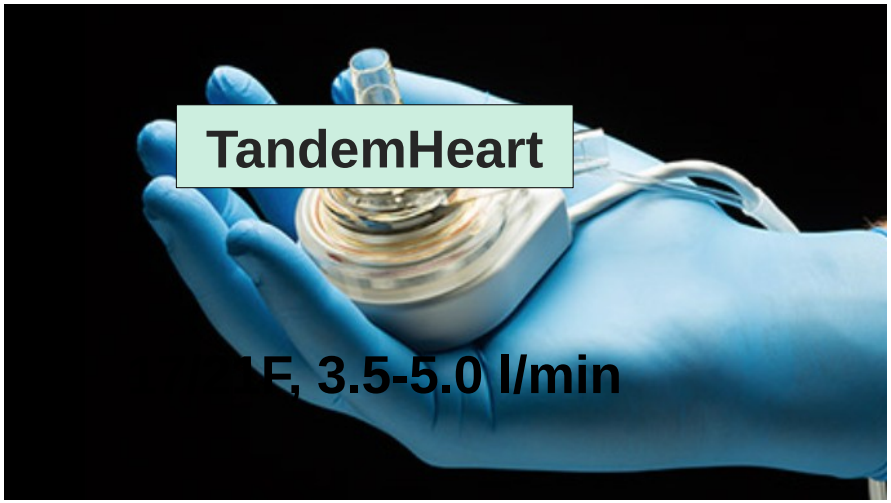
Why ?

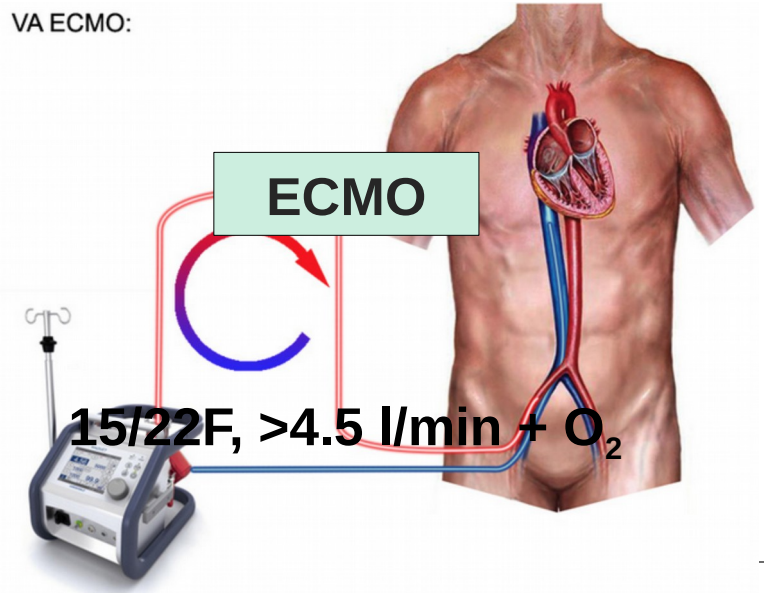


The available tools for hemodynamic support



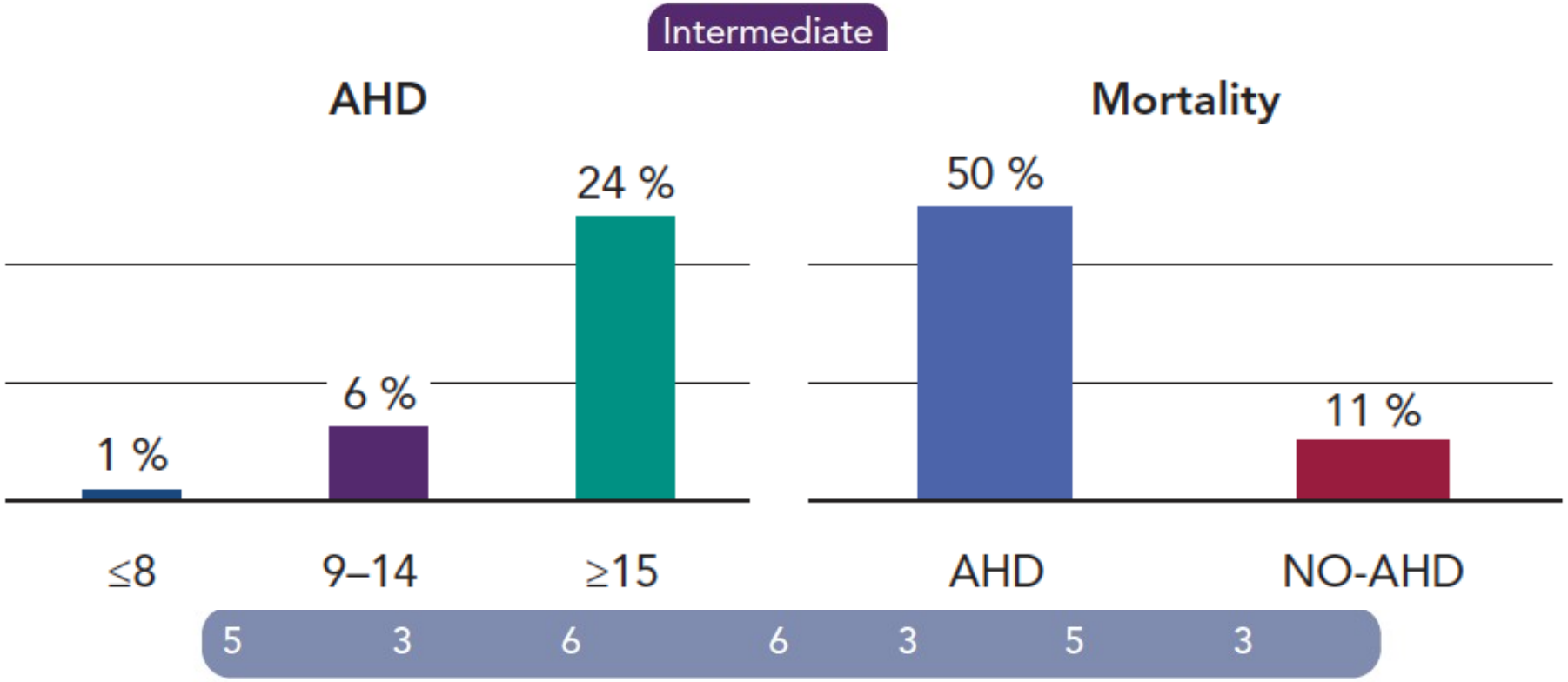






Data ?

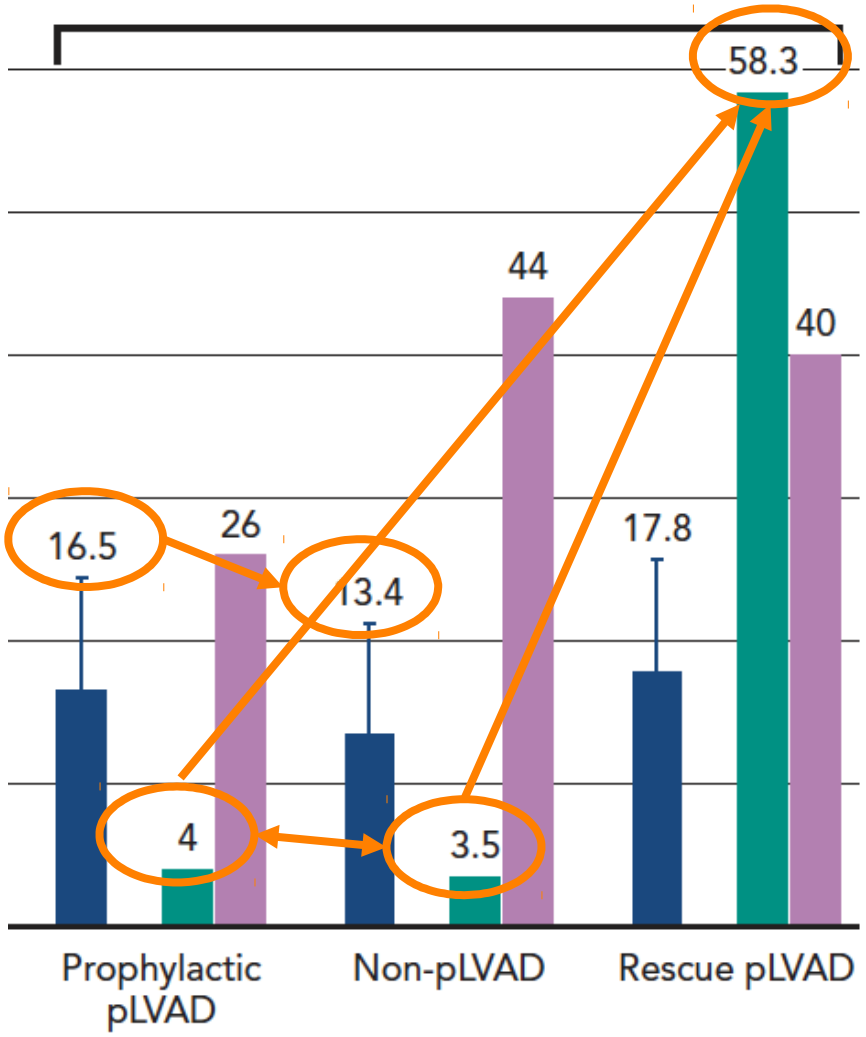
PAINESD score & acute haemodynamic instability



Muser D et al. Arrhythmia & Electrophysiol Review 2018

Data ?

Prophylactic versus rescue MCS



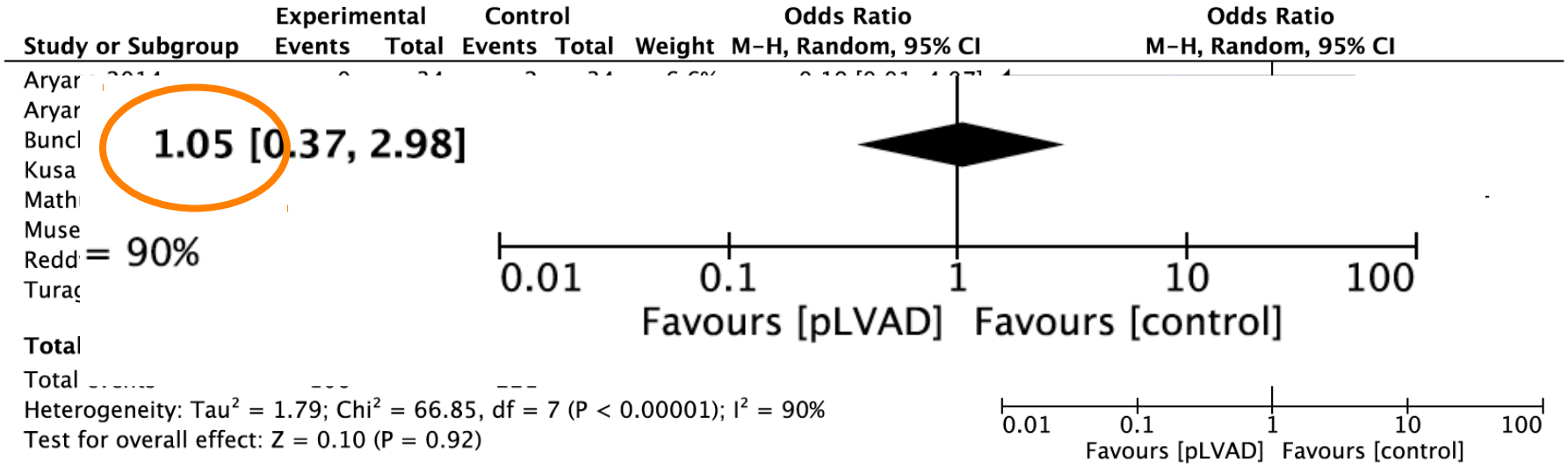
- **93 pts**
- **non-randomized**

Mathuria N et al. J Interv Card Electrophysiol 2017

Muser D et al. Arrhythmia & Electrophysiol Review 2018

Data ?

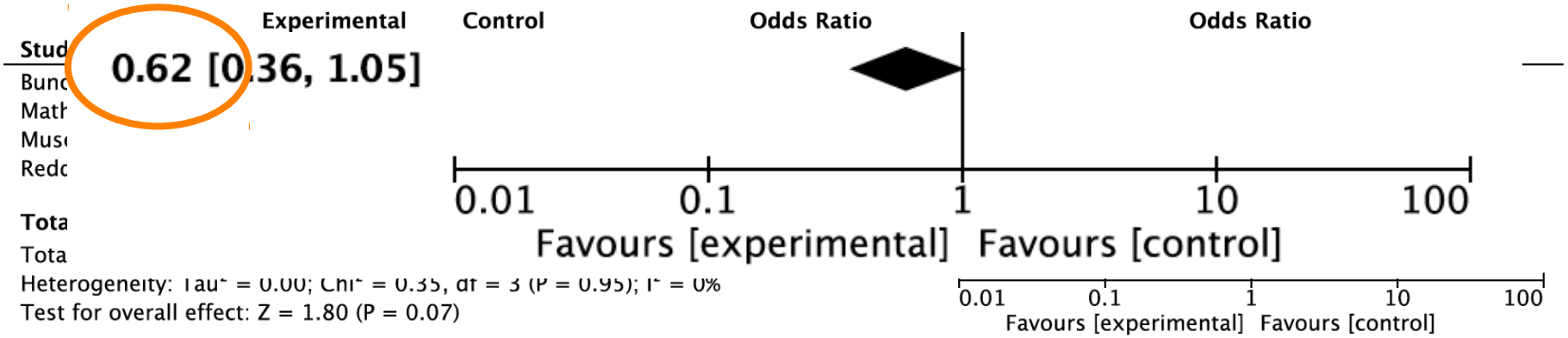
Meta-analysis of data on MCS for VT ablation



- **Overall mortality MCS vs no-MCS**

Luni FK et al. J Cardiovasc Electrophysiol 2019

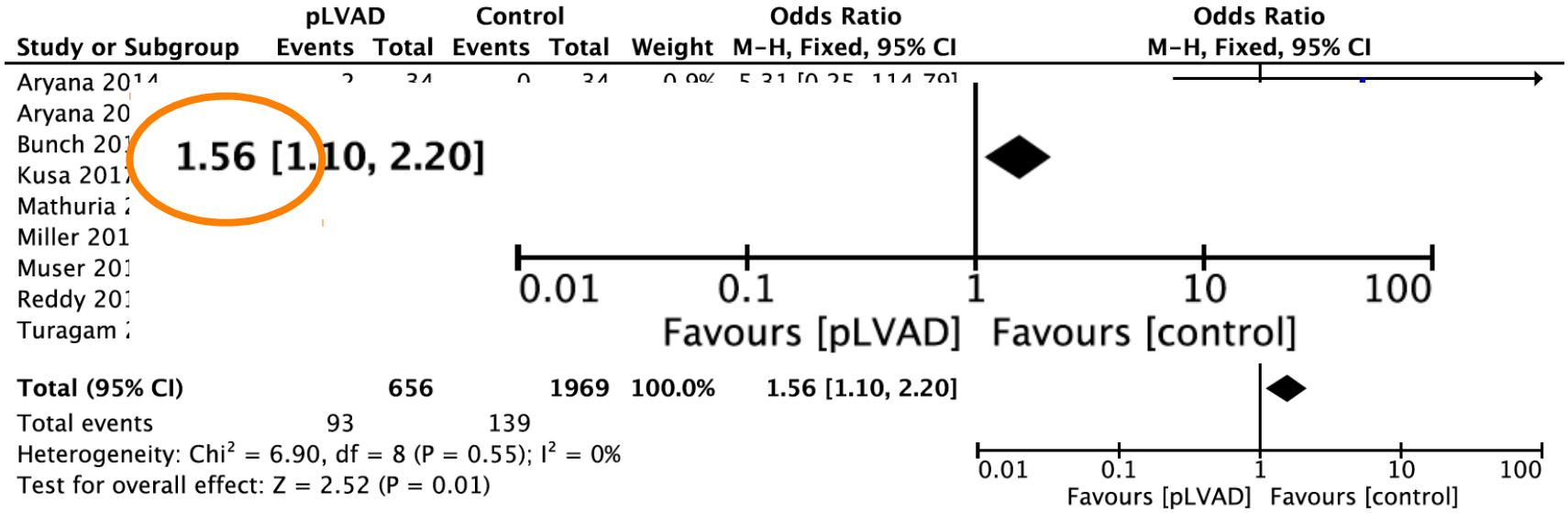
Meta-analysis of data on MCS for VT ablation



- **mortality in prophylactic MCS vs no-MCS**

Luni FK et al. J Cardiovasc Electrophysiol 2019

Meta-analysis of data on MCS for VT ablation



- **MCS adverse events**

Luni FK et al. J Cardiovasc Electrophysiol 2019

Haemodynamic support for VT ablation - the fine balance

- more time and less need for VT termination during mapping
- organ protection
- early mortality reduction in selected patients

- prolonged procedure
- (vascular) complications
- no effect on VT ablation endpoints and/or recurrence

Take-home messages

- hemodynamical instability during VT catheter ablation is not uncommon
- many patients may safely be treated without mechanical support
- MCS should be offered to the patients@risk beforehand, not as rescue
- use of MCS should be carefuly balanced in view of the risks and complexity (including cost) of such approach

Thank you