

Element 75.00

Sogaard



Optimizing, and Recognizing Patients Who Need It



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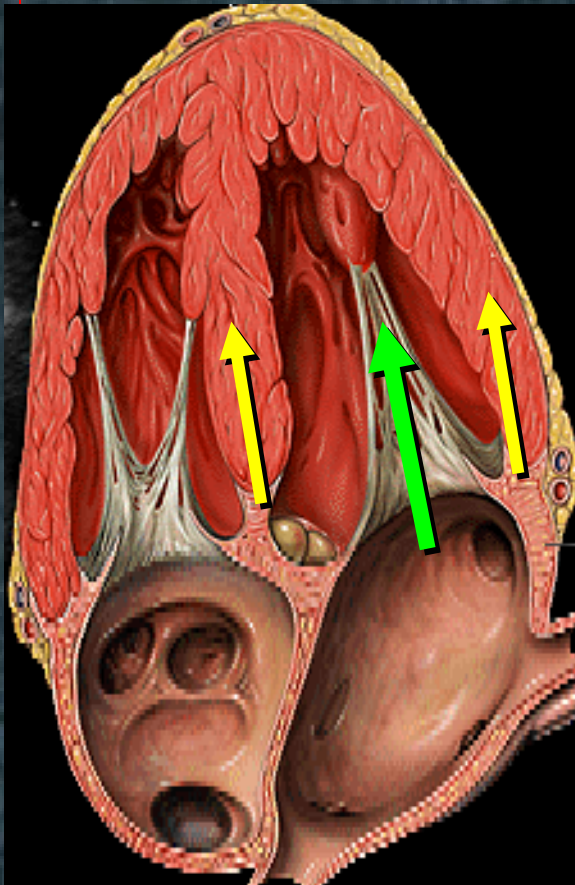


**Filling
performance**

**Systolic
performance**

Optimizing CRT

VV and AV delay programming

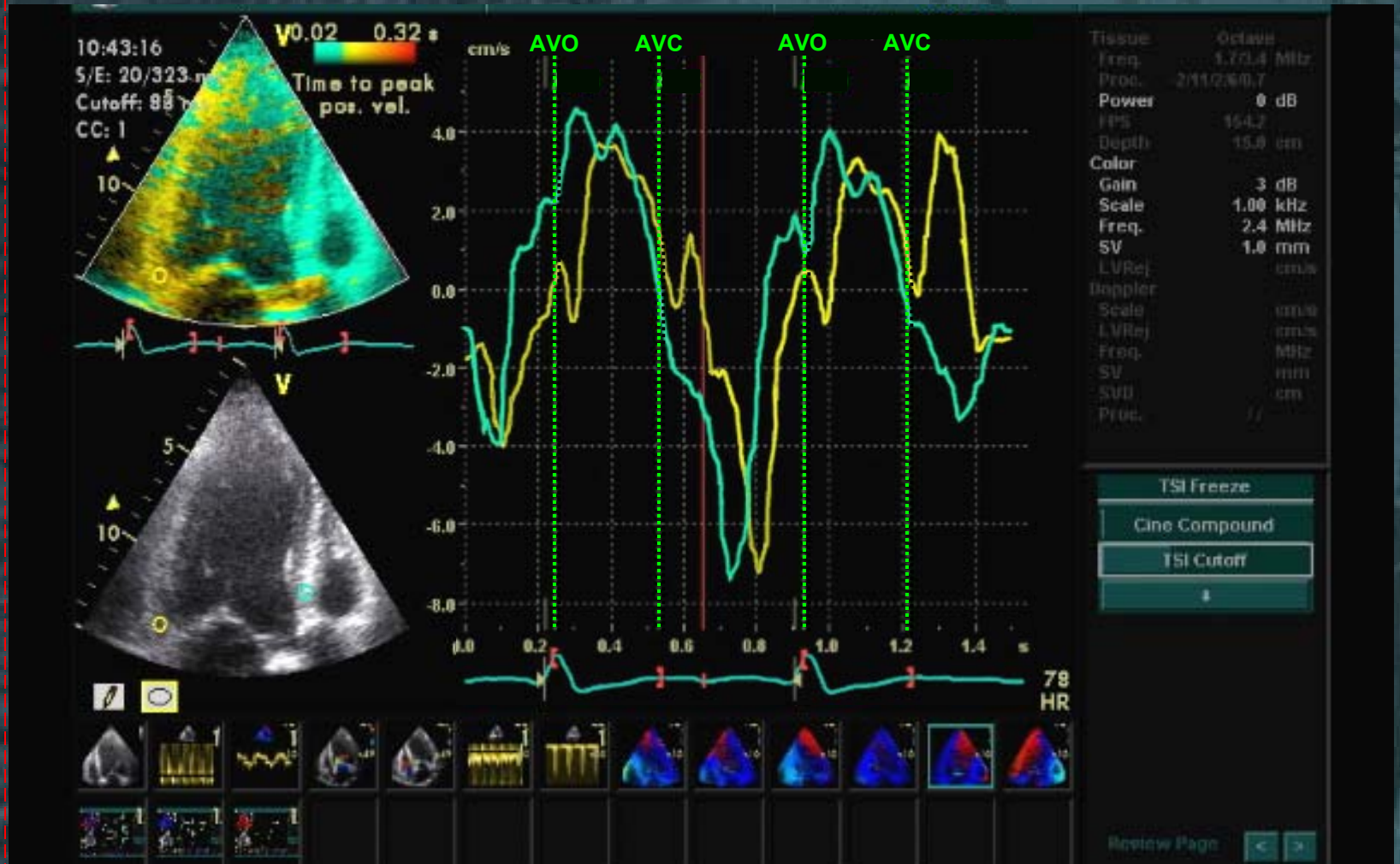


CRT plus VV timing improves
LV synchrony
Filling time

AV timing improves
Filling time
Contractile performance?

Combined effect: Improving
Contractile performance
Preload
Cardiac output
Remodeling

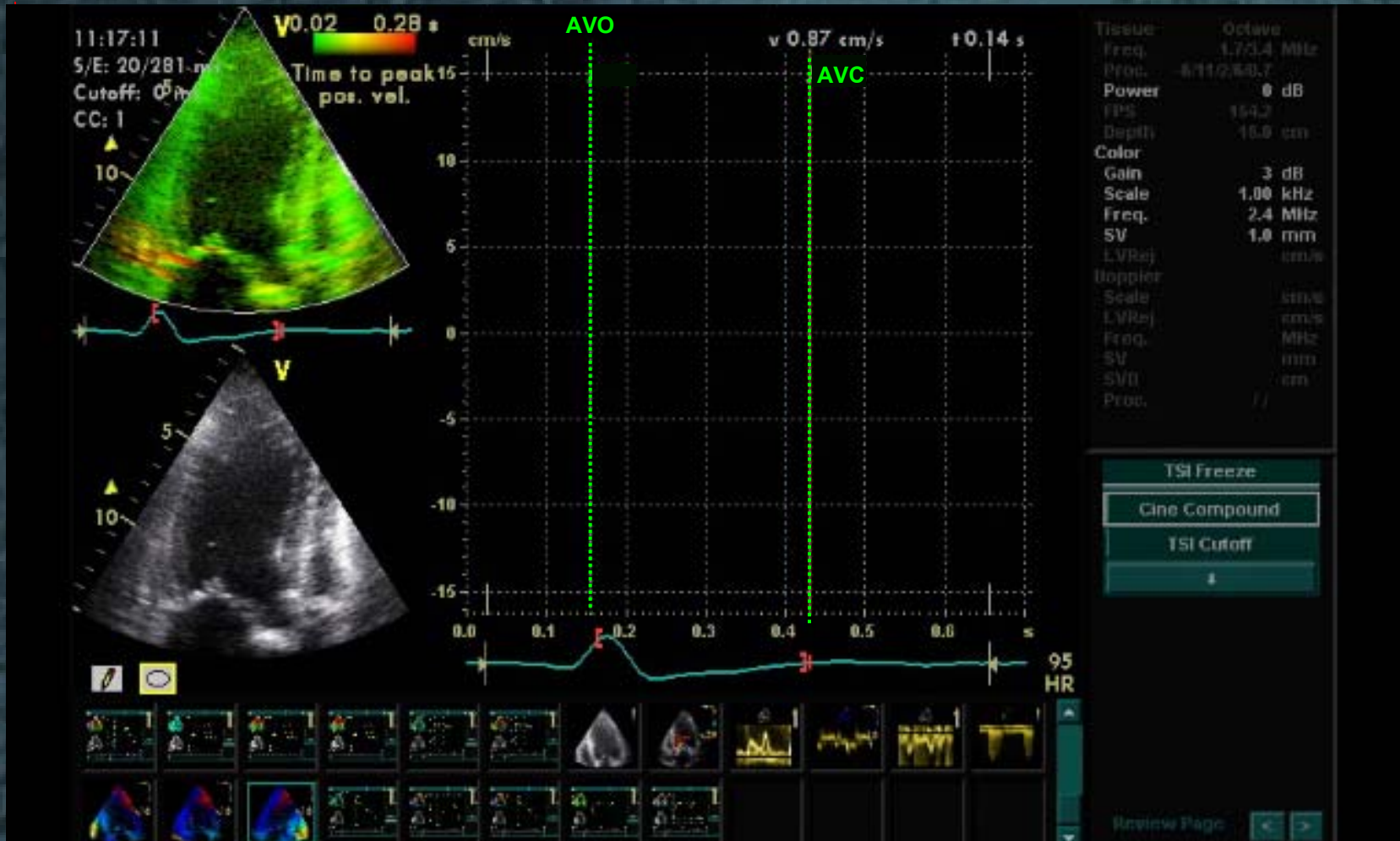
Mechanical Asynchrony/Performance



Mechanical Asynchrony/Performance



Mechanical Asynchrony/Performance

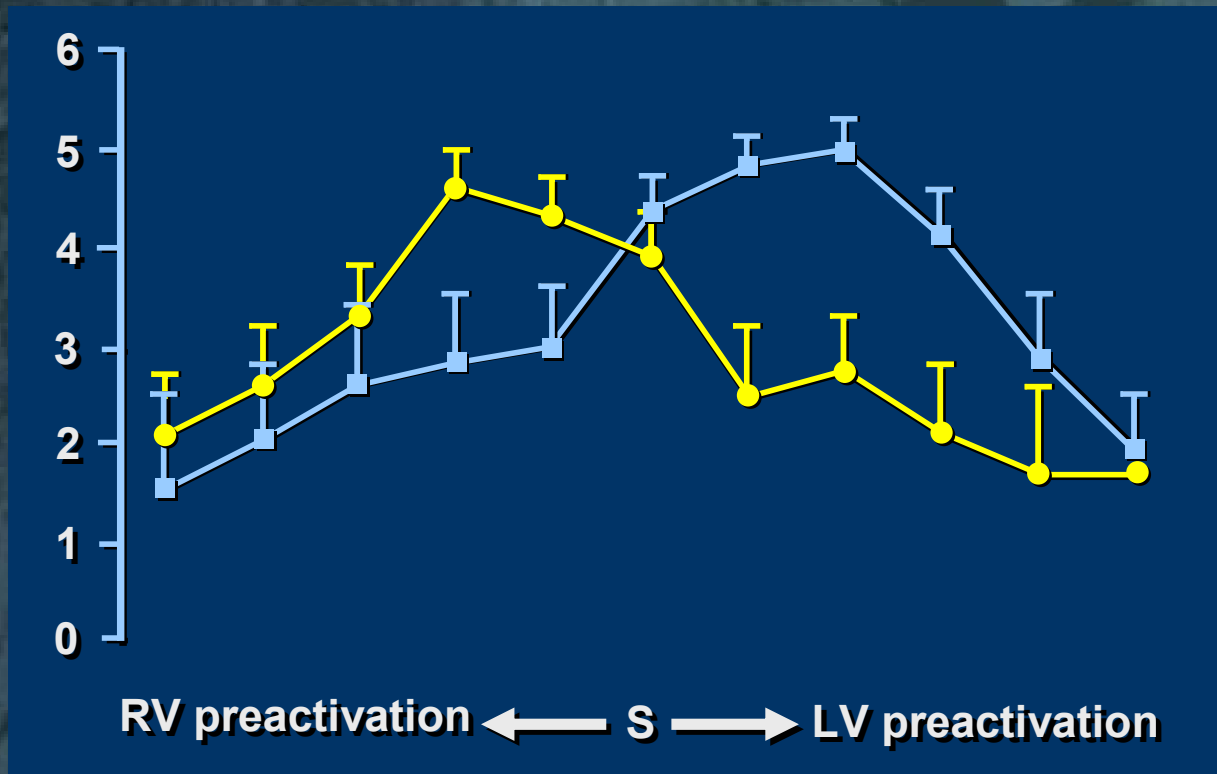


Mechanical Asynchrony/Performance



Cardiac Resynchronization

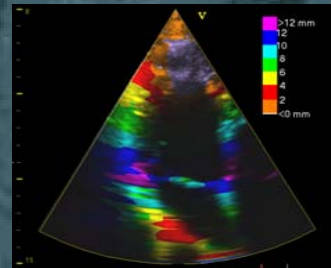
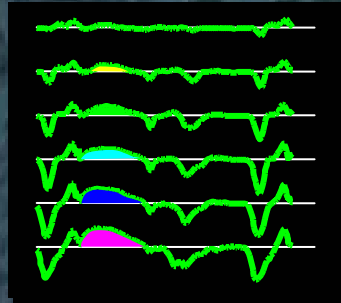
V V timing and performance



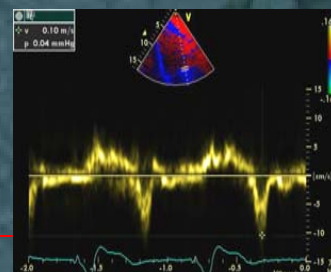
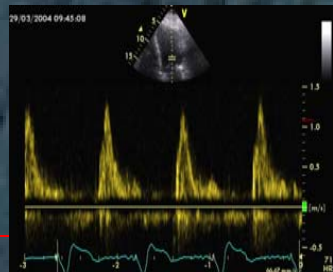
Sogaard Circulation 2002
Mortensen PACE 2004
Bordacher JACC 2004

AV-delay Programming

- Consecutive patients
- AV delay assessment by the iterative method
- Systolic performance by TDI (tissue track)



- E/E' assessment as measure of preload



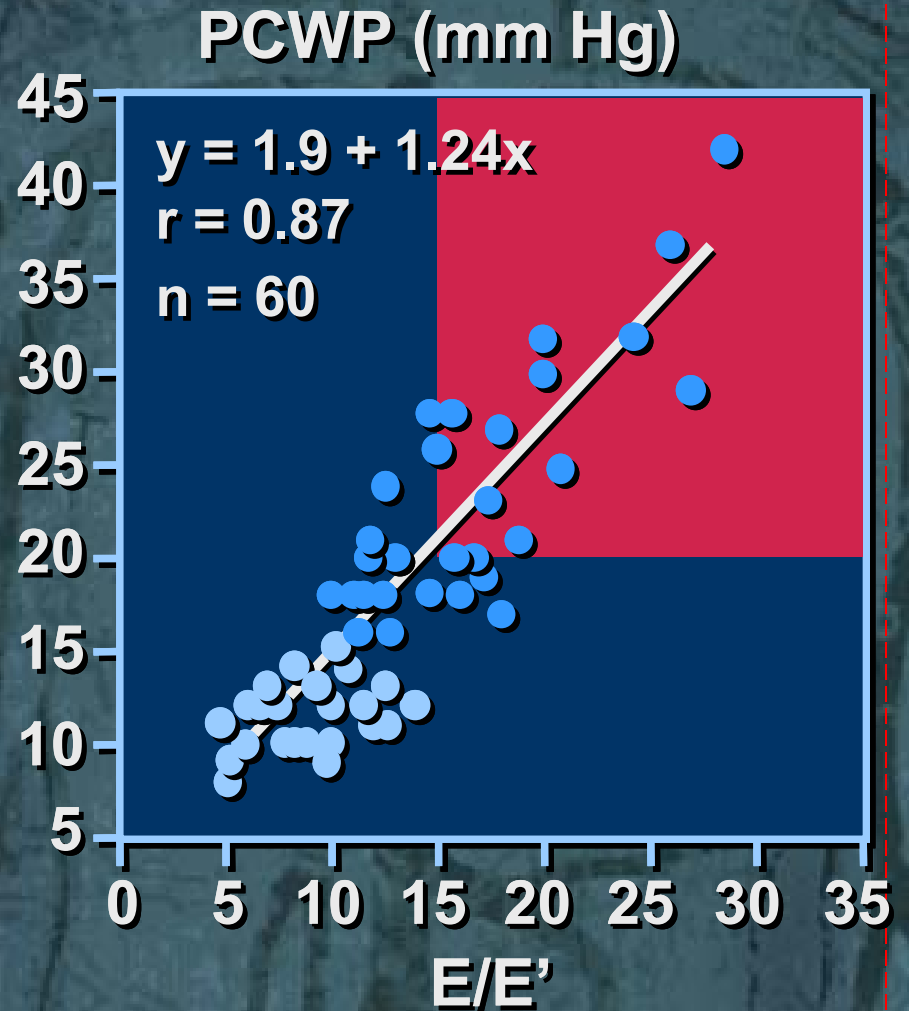
As LV filling pressure \uparrow
pressure \uparrow

Mitral E \uparrow

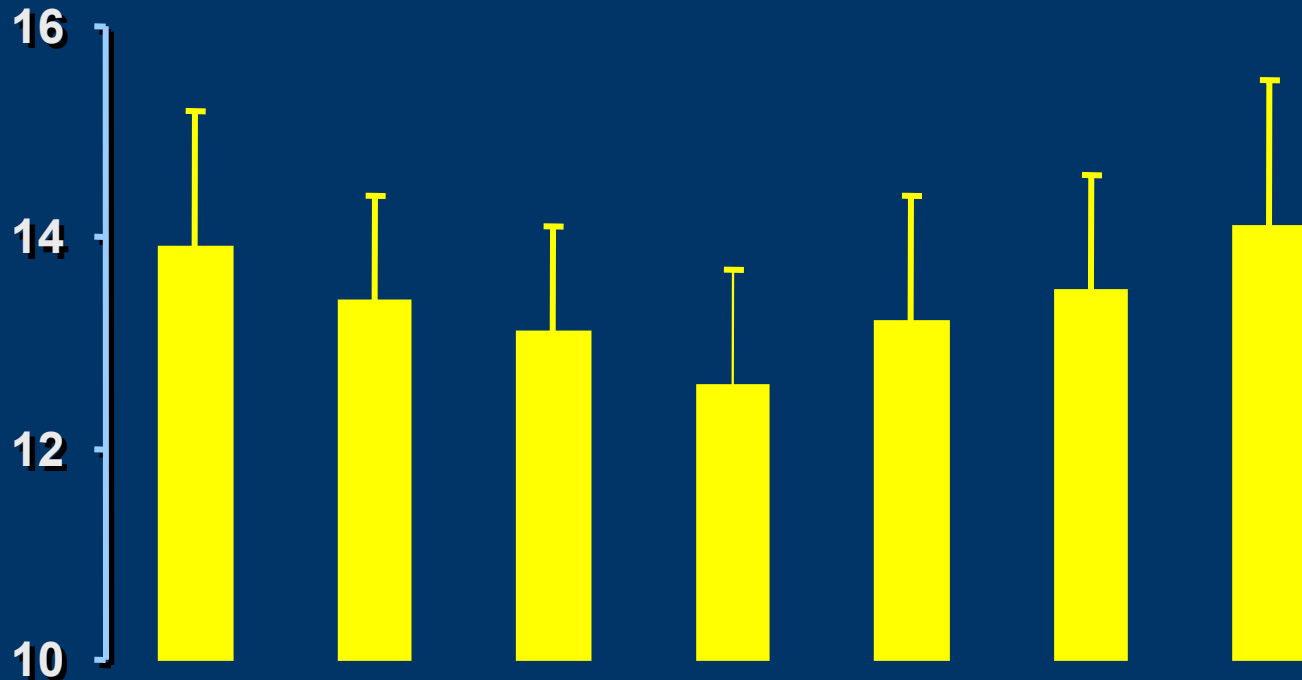
Annulus E' \downarrow

E/E' \uparrow

Nagueh et al: JACC, 1997
Ommen et al: Circ, 2000

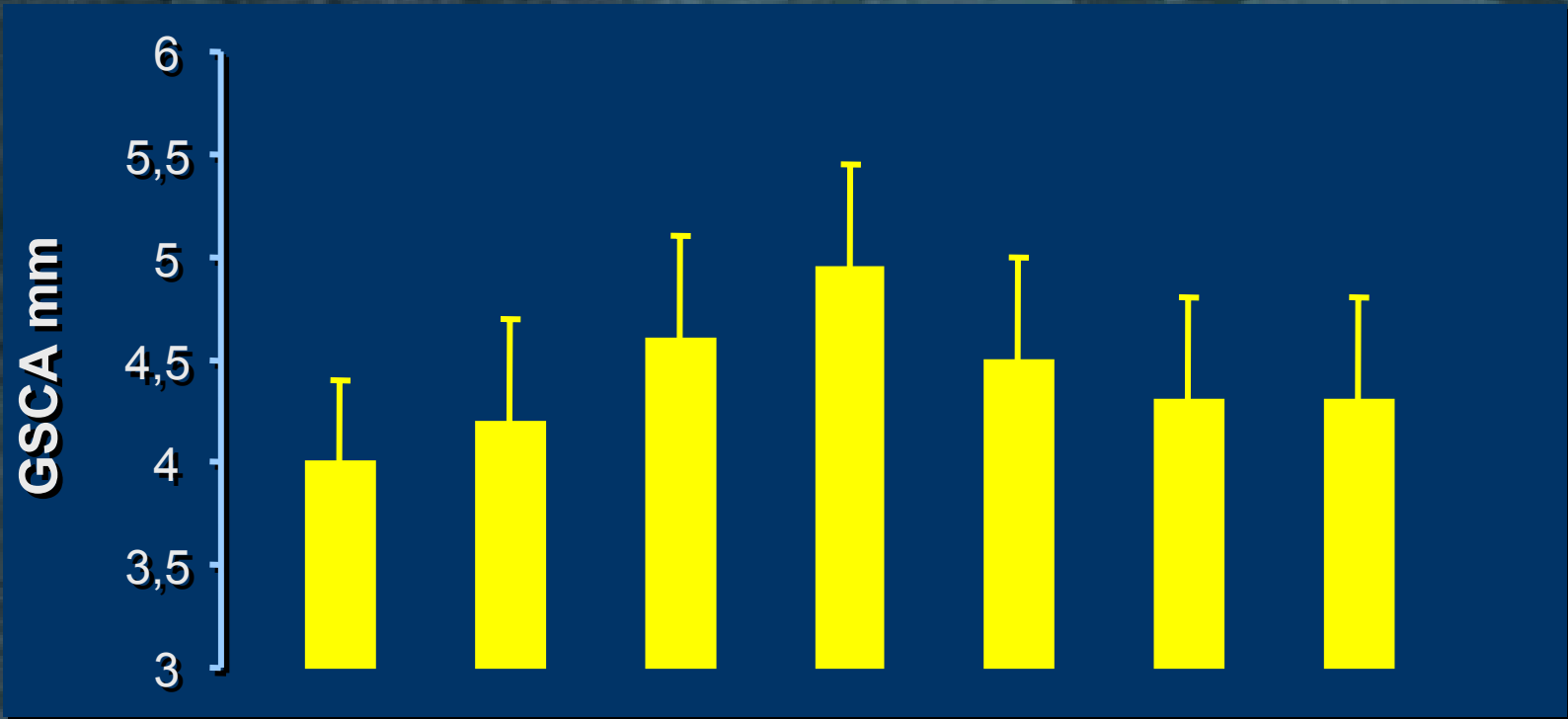


AV-delay and Performance



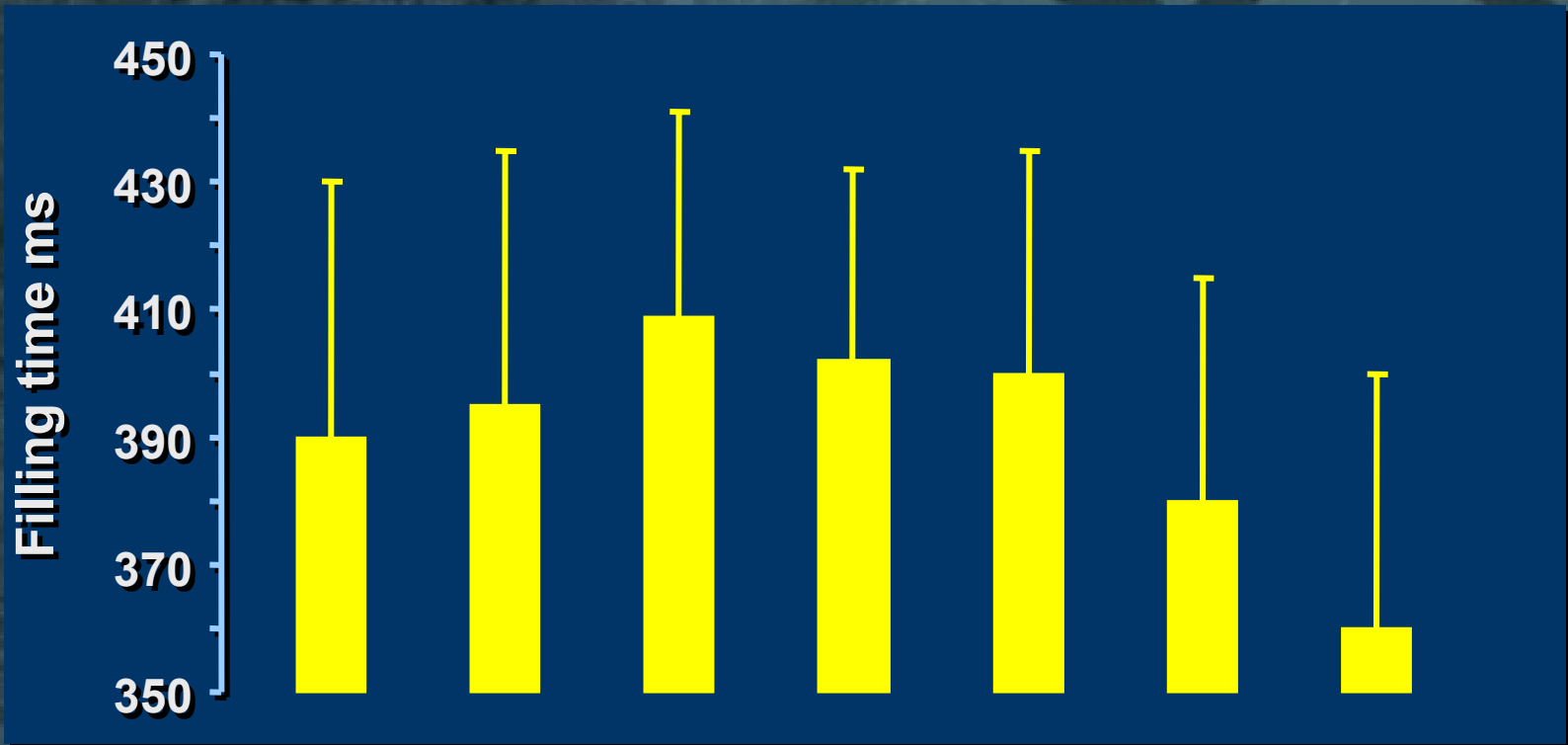
Peak low E/E'

AV-delay and Performance



↑
Peak low E/E'

AV-delay and Performance



↑
Peak low E/E`

Optimizing and Recognizing Patients Who Need It

VV timing and AV optimization

CRT benefit is related to;

Improved synchrony

Improved contractile performance

Improved LV filling and hemodynamics

Reverse LV remodeling

**Optimizing VV timing and AV delay
further contributes to CRT efficacy**

