

Post-Traumatic Stress in the Cardiac Patient

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Cardiac Psychiatry

- CAD
- Arrhythmias
- Heart Failure
- Risk factors
- Concurrence
- The 20% rule

After the cardiac event: the Road to Recovery

- Shock
- Aftermath
- Reaction
- Rehabilitation
- Reorientation

Common post traumatic symptoms in the Cardiac patient include: Which are correct?

- Hypervigilance, startle response
- Sleep more than usual
- Increased concentration
- Less irritability
- Repeated recall of event

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Posttraumatic Stress Disorder: DSM-5 Checklist

1. Exposure to actual or threatened death
2. One or more intrusive symptoms
3. Persistent avoidance of trauma-associated stimuli
4. Negative changes in cognitions and mood
5. Significant changes in arousal and reactivity
6. Significant distress and/or impairment

Symptoms last more than 1 month

Criterion A: Exposure

All

- Cardiac event, sudden cardiac arrest, ICD implantation, shock, or storm are perceived as deadly or threatening.
- There is a perception of fear, helplessness, or horror.
- Symptoms must be present for at least one month. Specify "acute" if symptoms have lasted fewer than three months and "chronic" if greater than three months.

Persistent Re-experiencing

One or more

- Recalling the cardiac event over and over.
- Dreaming about getting shocked
- Truly believing or feeling shock is recurring (e.g. phantom shock)
- Exposure to cues that remind them of the event (e.g. couch they were on when shocked) creates psychological distress
- Exposure to cues that remind them of the event (e.g. heart racing) causes body to react.

Persistent Avoidance

Three or more

- Avoidance of discussing the event (this may include avoidance of office visits or repeated no-shows)
- Cannot remember the event (e.g. SCA or shock)
- Avoid engagement in activities due to fear of shock
- Feeling estranged from family or friends following cardiac trauma
- Restricted range of affect (not able to express a range of emotions) following SCA or shock
- Belief that shock is an indicator of cardiac health and foreshortened future.

Increased Arousal

Two or more

- Following cardiac trauma (e.g. surgery, SCA, shock, storm):
 - Trouble falling or staying asleep
 - More irritable and angry
 - Difficulty concentrating
 - Exaggerated startle response
- Hyper-vigilant: preoccupied with heart rate, gastrointestinal and chest pain, and other bodily sensations

Which condition is most associated with worse outcome(including mortality) in the cardiac patient?

- Anxiety
- Depression
- PTSD
- Social isolation
- Anger

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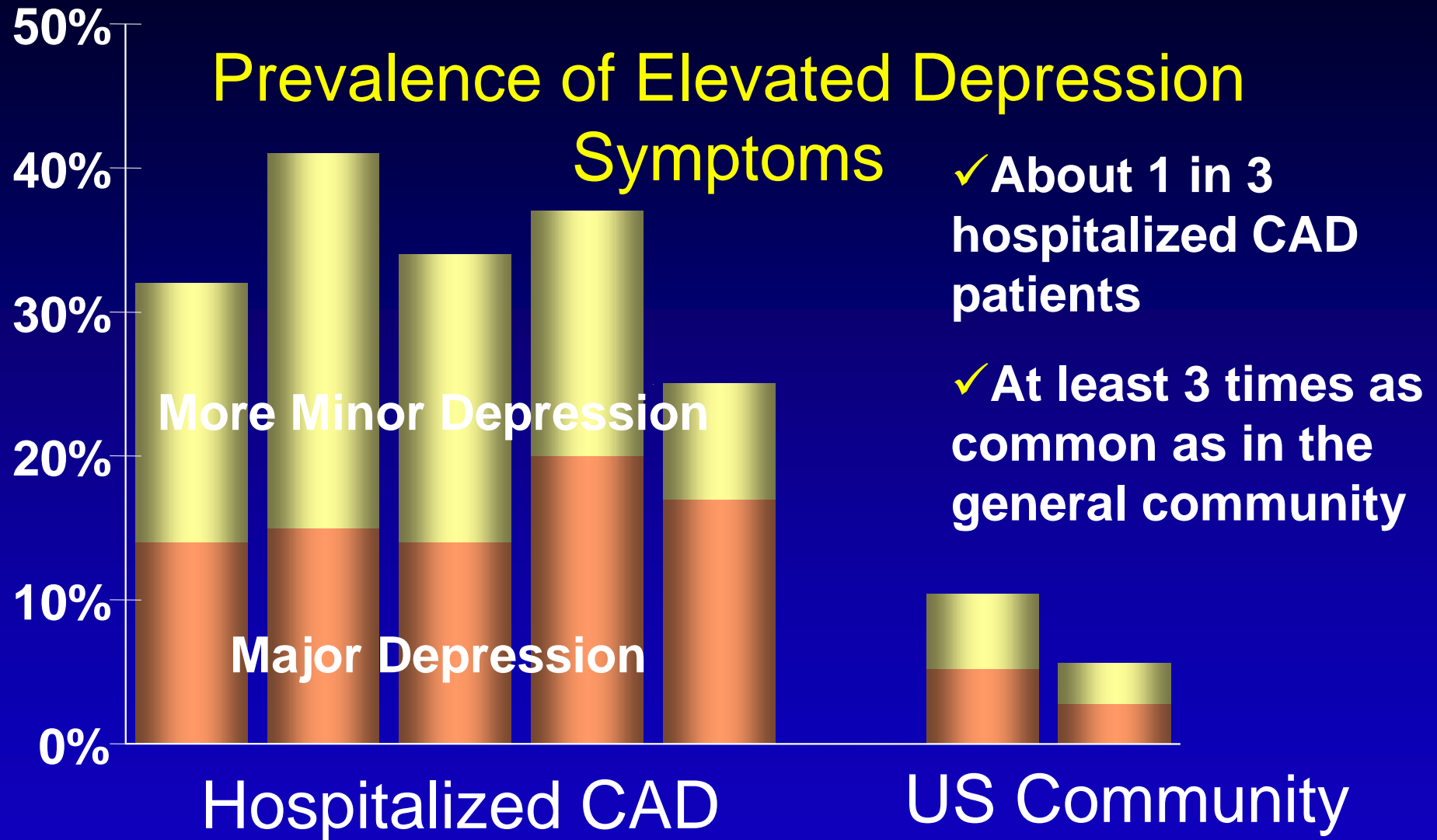
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Depression following myocardial infarction. Impact on 6-month survival.

Frasure-Smith N, Lesperance F, Talajic M.

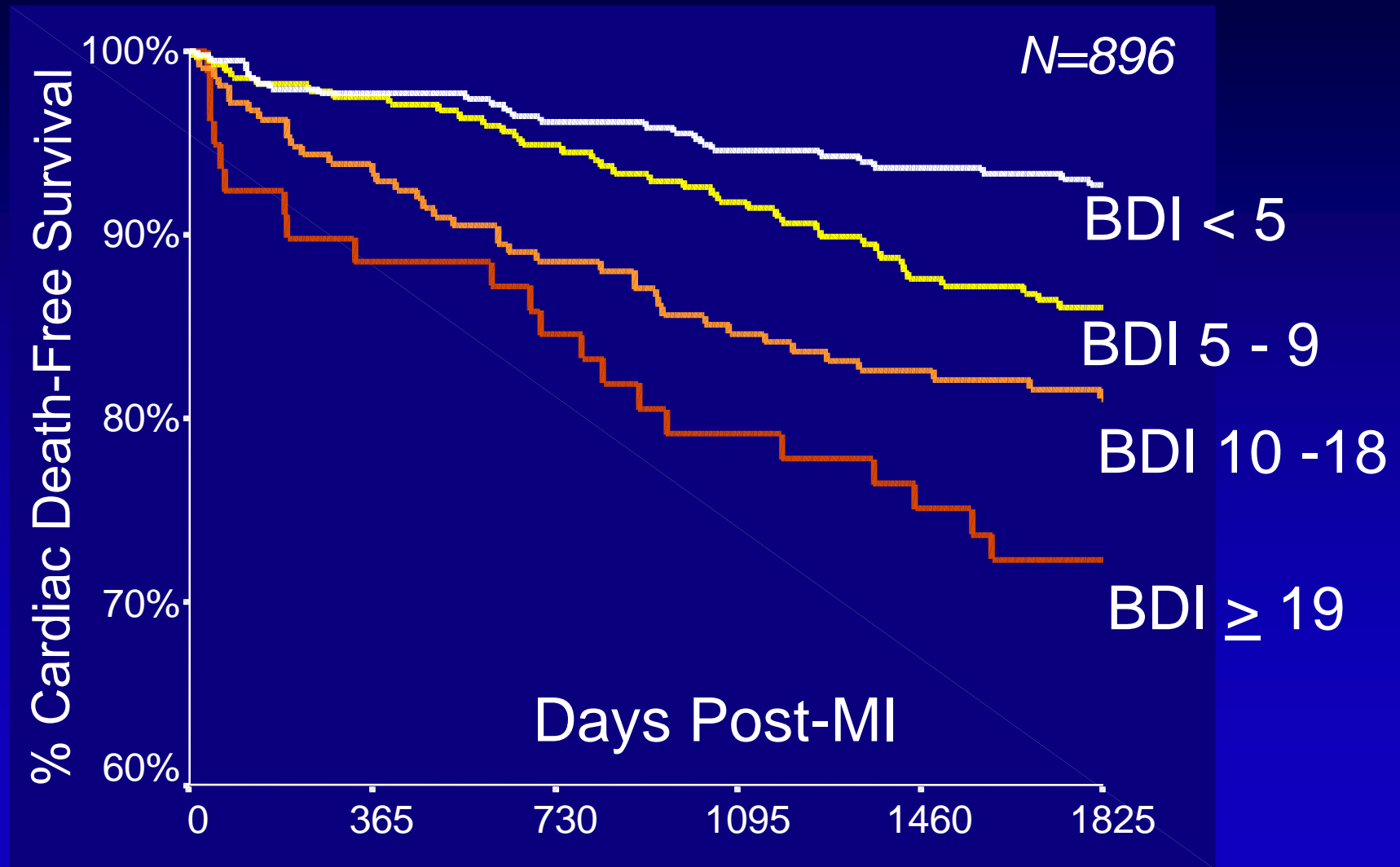
In 222 subjects(78%male) post-MI and using structured interview, showed that major depression was a significant predictor of mortality at 6 months(adjusted hazard ratio, 4.29; 95% confidence interval, 3.14 to 5.44; $P = .013$).

JAMA. 1993 Oct 20;270(15):1819-25.



Frasure-Smith et al 1993,1999; Lespérance et al 2000;
Jiang et al 2001; Hance et al 1996; Connerney et al 2001

Long-Term Survival Impact of Increasing Levels of Post-MI Depression (BDI Score)



Potentially Useful Treatments for Depression in CAD Patients

- Antidepressants (SSRIs not TCAs)
- Brief, structured psychotherapies with active therapist involvement
 - Cognitive Behavioral Therapy (CBT)
 - Interpersonal Psychotherapy (IPT)
- Exercise

Which 2 of these options are most associated with best treatment response in the depressed CAD patient?

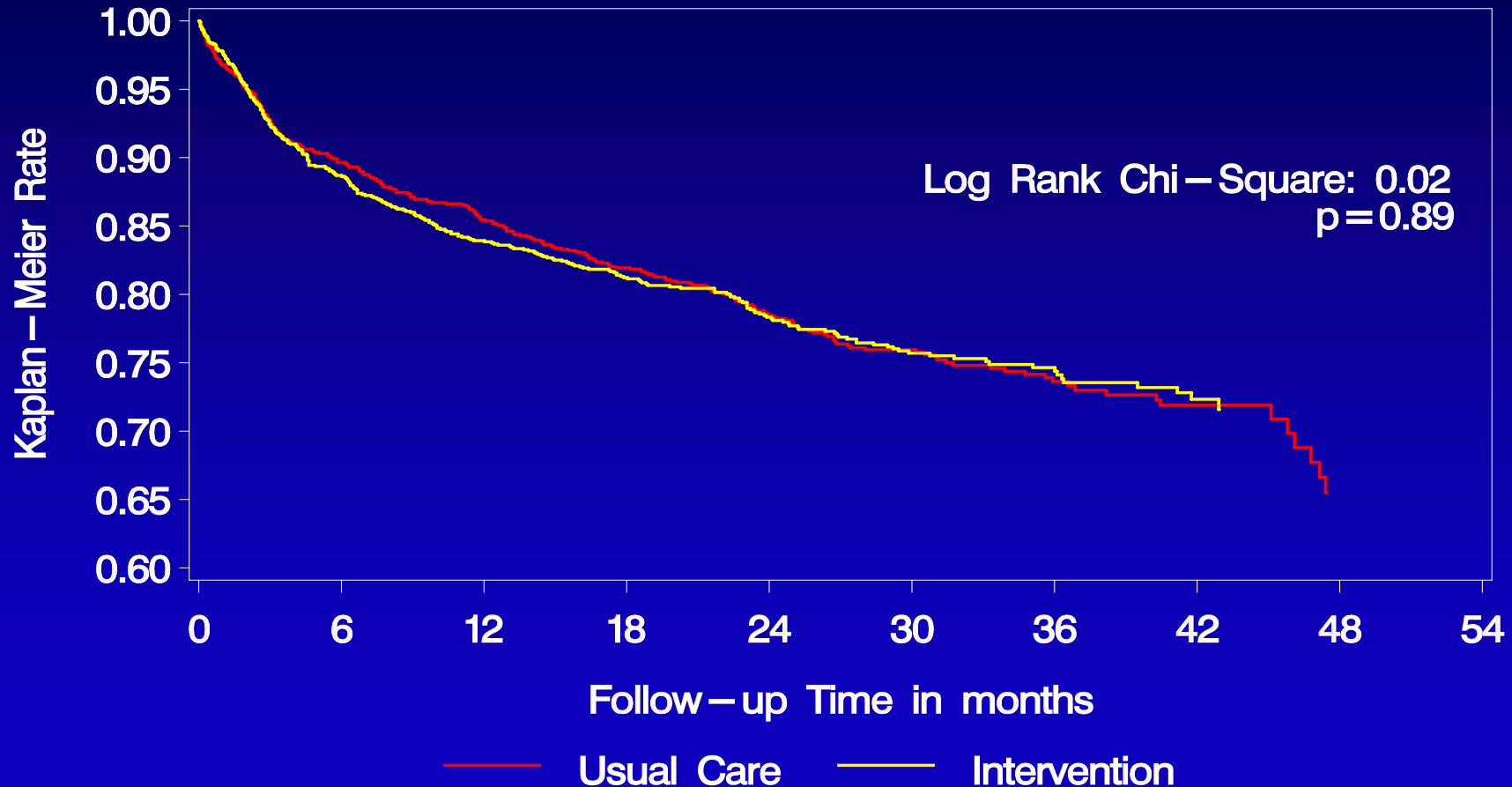
- Major Depressive Disorder, repeat, with antidepressant
- Major Depressive Disorder with Interpersonal Psychotherapy
- Major Depressive Disorder with Cognitive Behavioral Therapy
- Major Depressive Disorder, first time, with antidepressant
- Minor Depression with cardiac rehab program

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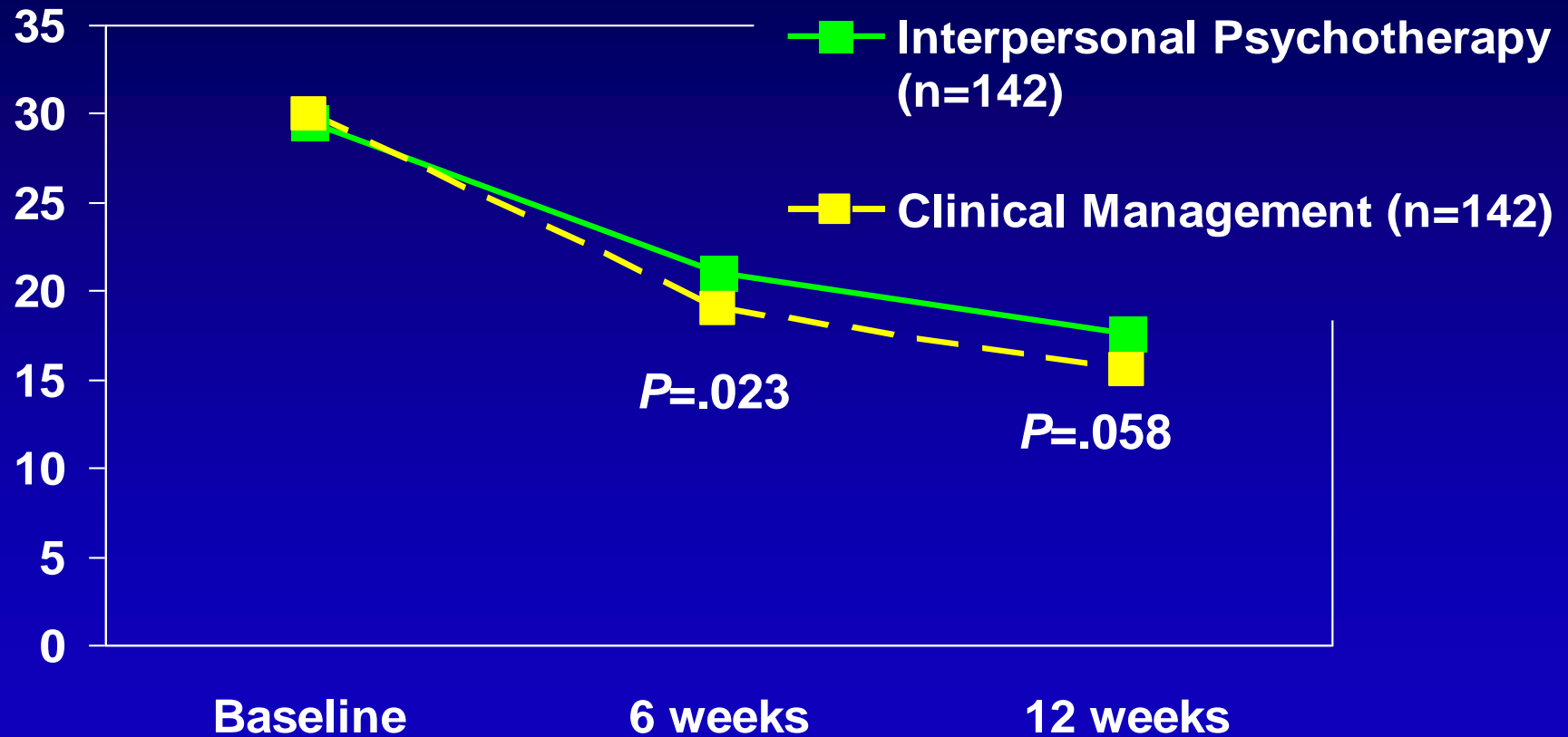
ENRICHED: CBT vs Usual Care in CAD pts *JAMA 2003*

Survival Curves



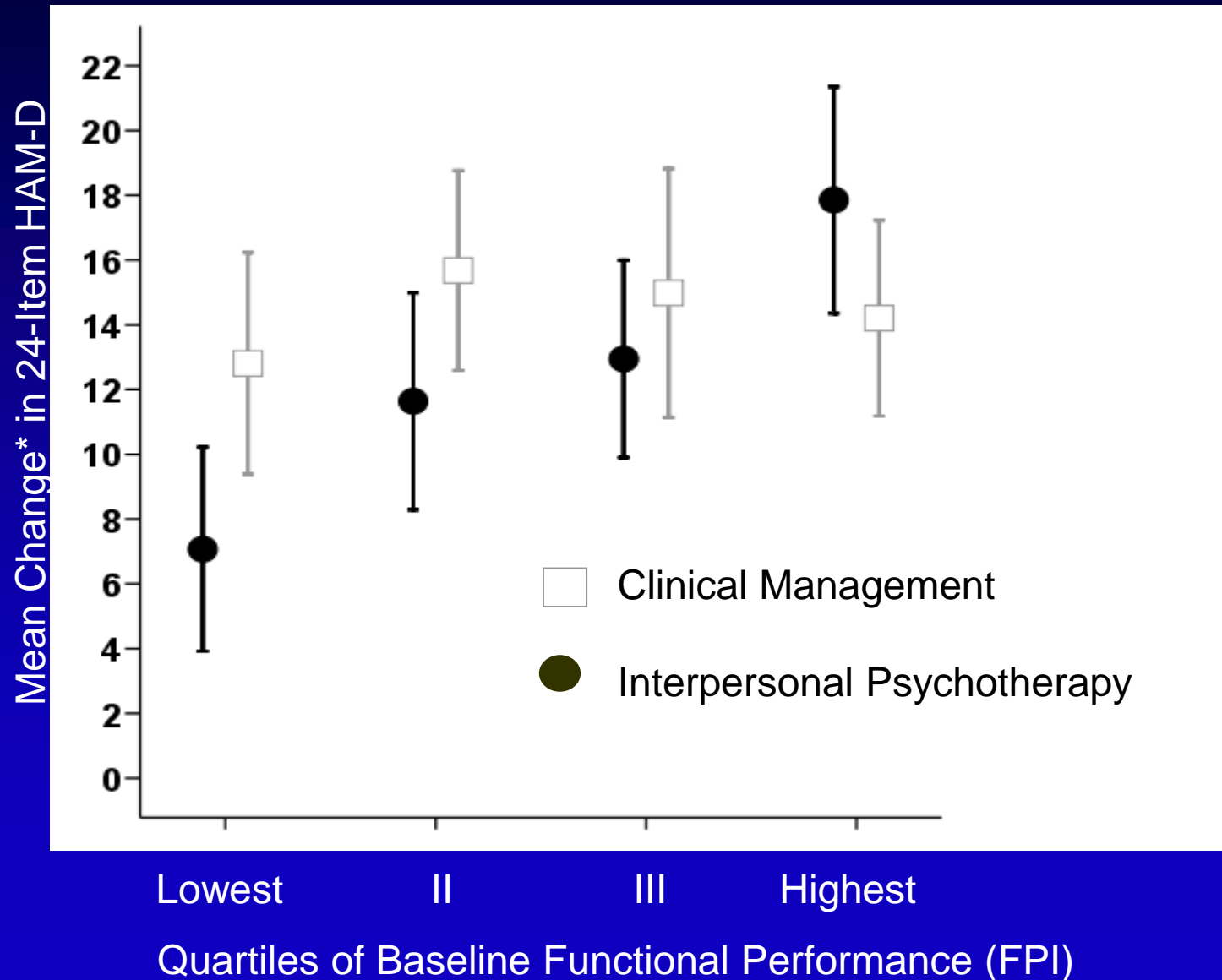
Interpersonal Psychotherapy for CAD pts

Mean 24-item HAMD scores in CREATE



Mean Changes in 24-HAMD in IPT vs CM Groups in Relation to Baseline Levels of Functional Performance

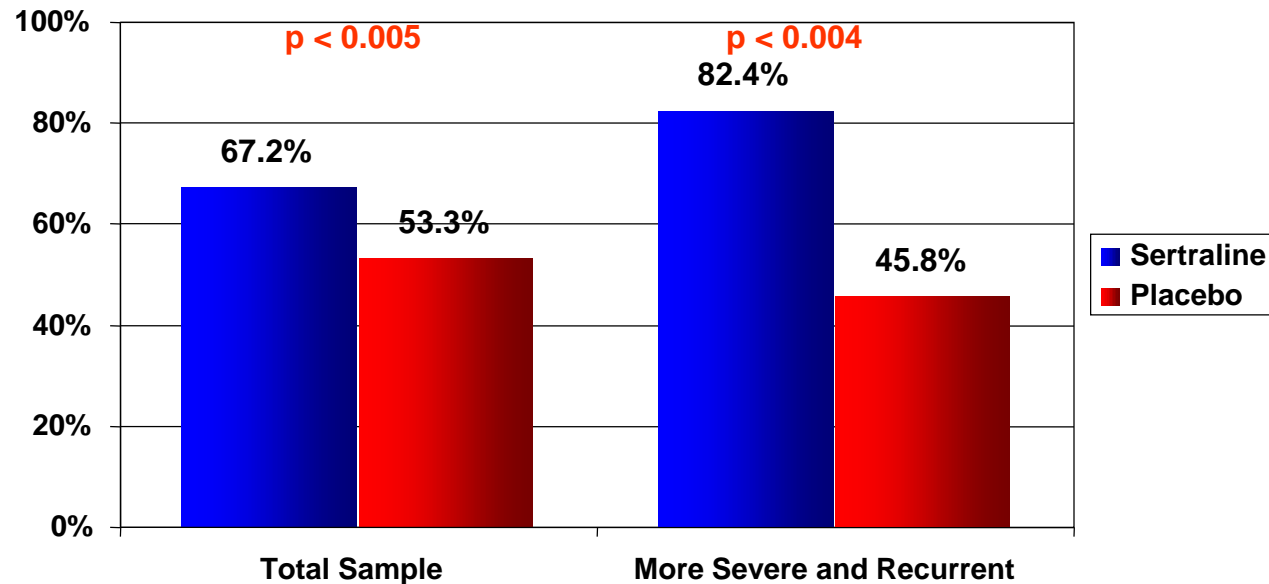
(adjusted for baseline HAMD scores; p for interaction = .001)



SADHART

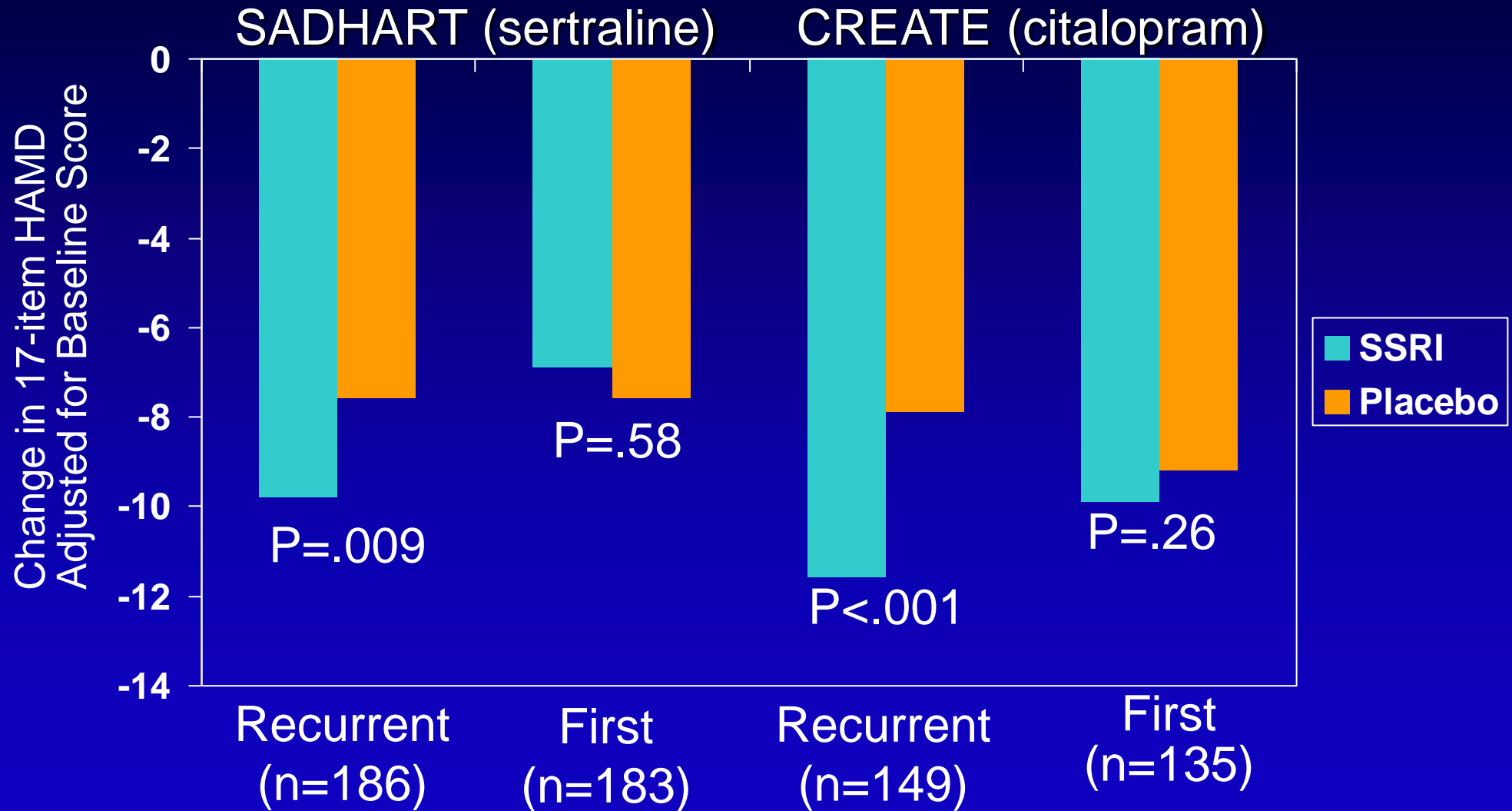
(Sertraline Antidepressant Heart Attack Randomized Trial) JAMA 2002

Endpoint Responder* Rates for Two Treatment Groups: Sertraline vs. Placebo

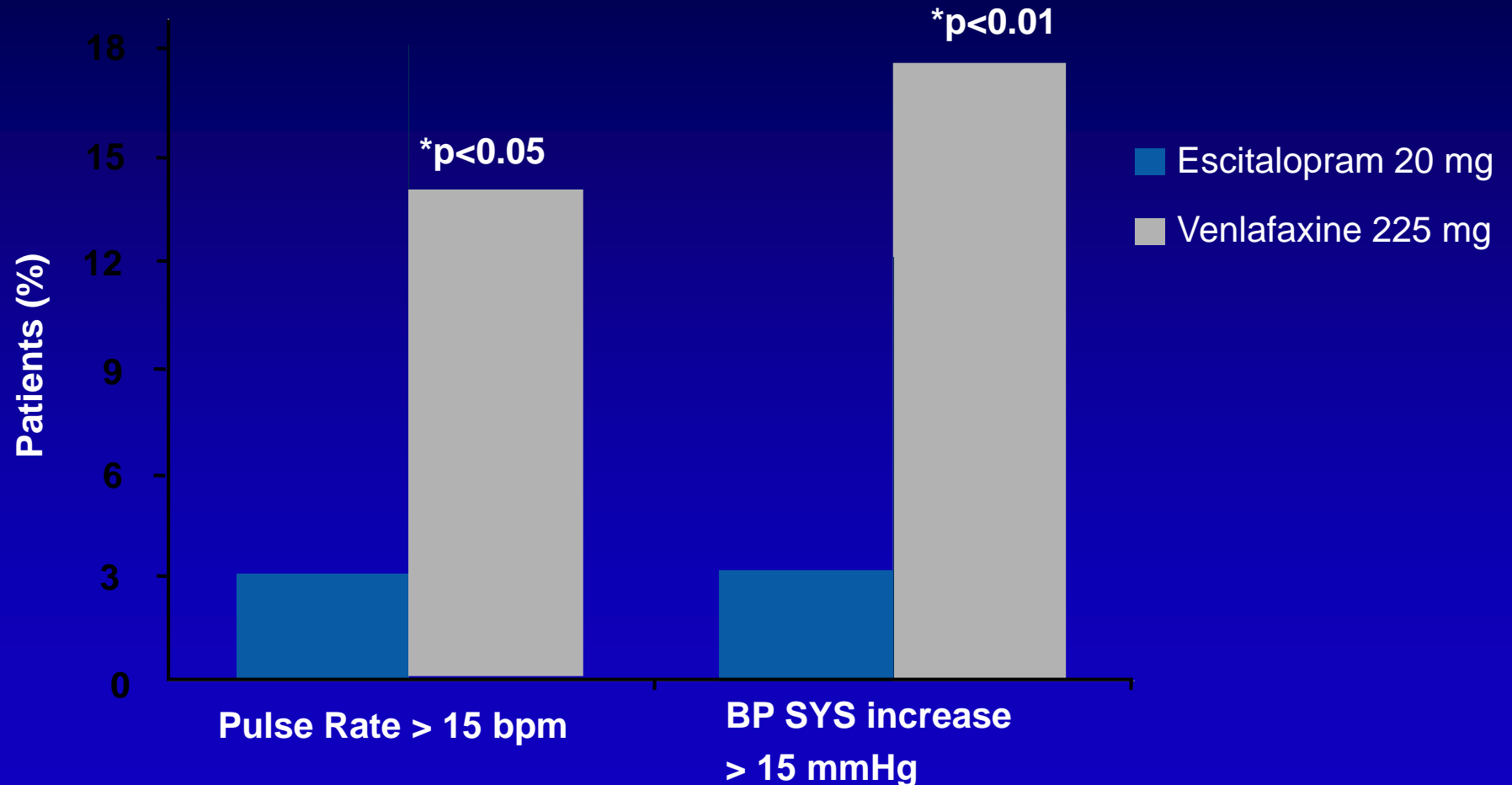


* Responder: CGI $-1 \leq 2$

Efficacy of SSRI Treatment for First vs Recurrent Depression in CAD Patients

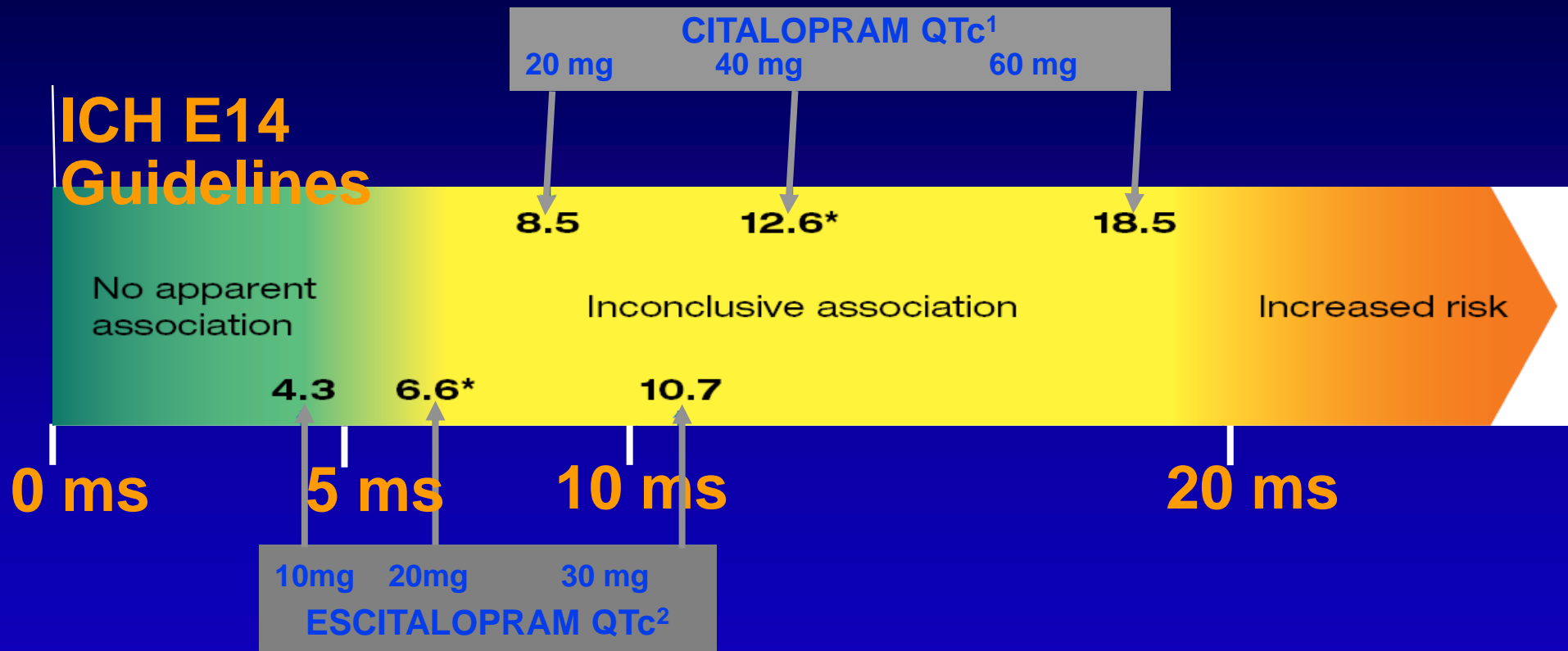


Escitalopram & Venlafaxine: Change in Blood Pressure and Pulse



Effects on the QTc interval

ESTIMATED ASSOCIATION BETWEEN PROLONGATION OF THE QTc INTERVAL (ms) AND RISK OF ARRHYTHMIA



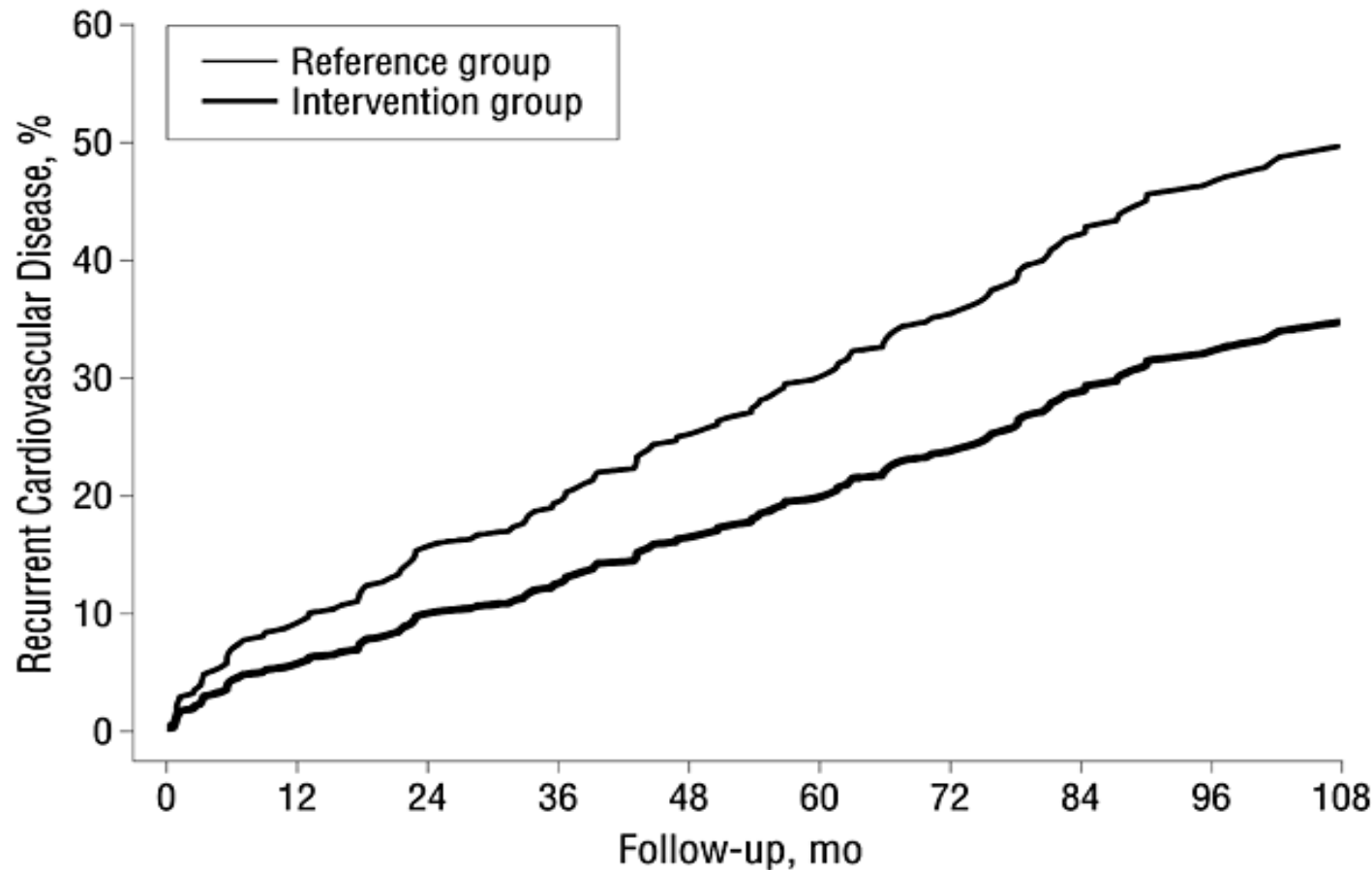
1- CIT QTcNi mean values from Health Canada Celexa PM

2- ESC QTcF mean values from US Lexapro PI and Health Canada Cipralex PM

* Estimated values

CBT Program(*incl. stress management*) post-CAD event

Cumulative first recurrent fatal and nonfatal cardiovascular events during 9 years from baseline.



Which approach is preferable?

- Screening questions and questionnaires for depression and anxiety, mental health collaboration
- Anxiety, depression, PTSD questionnaires
- Screening questions for depression, anxiety and PTSD, mental health collaboration
- Anxiety, depression, PTSD questionnaires and mental health collaboration
- Screening questions and questionnaires for depression ,anxiety and PTSD, mental health collaboration

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Suggested Questions for Use to Establish Patient Need for Mental Health Care

■ Depressive disorder

- Have you been feeling depressed, down or hopeless for most of the past month?
- Do you find that you no longer enjoy activities you used to look forward to?

■ General anxiety/panic symptoms

- Do you feel nervous or jittery most of the time?
- Do you find that you cannot stop worrying about the potential for a future event?
- Do you have periods of intense anxiety or panic that occur out of the blue?

Suggested Questions to establish Patient Need for Mental Health Care

- Post traumatic stress disorder
- Do you have nightmares or flashbacks as if you are having the event again?
- Have you been avoiding things that remind you of the event?
- Do you find that you are almost always aware that you may have another cardiac event?
- Are you having trouble concentrating, being irritable or having sleep problems?
- *(Impact of Event Scale-Revised)*

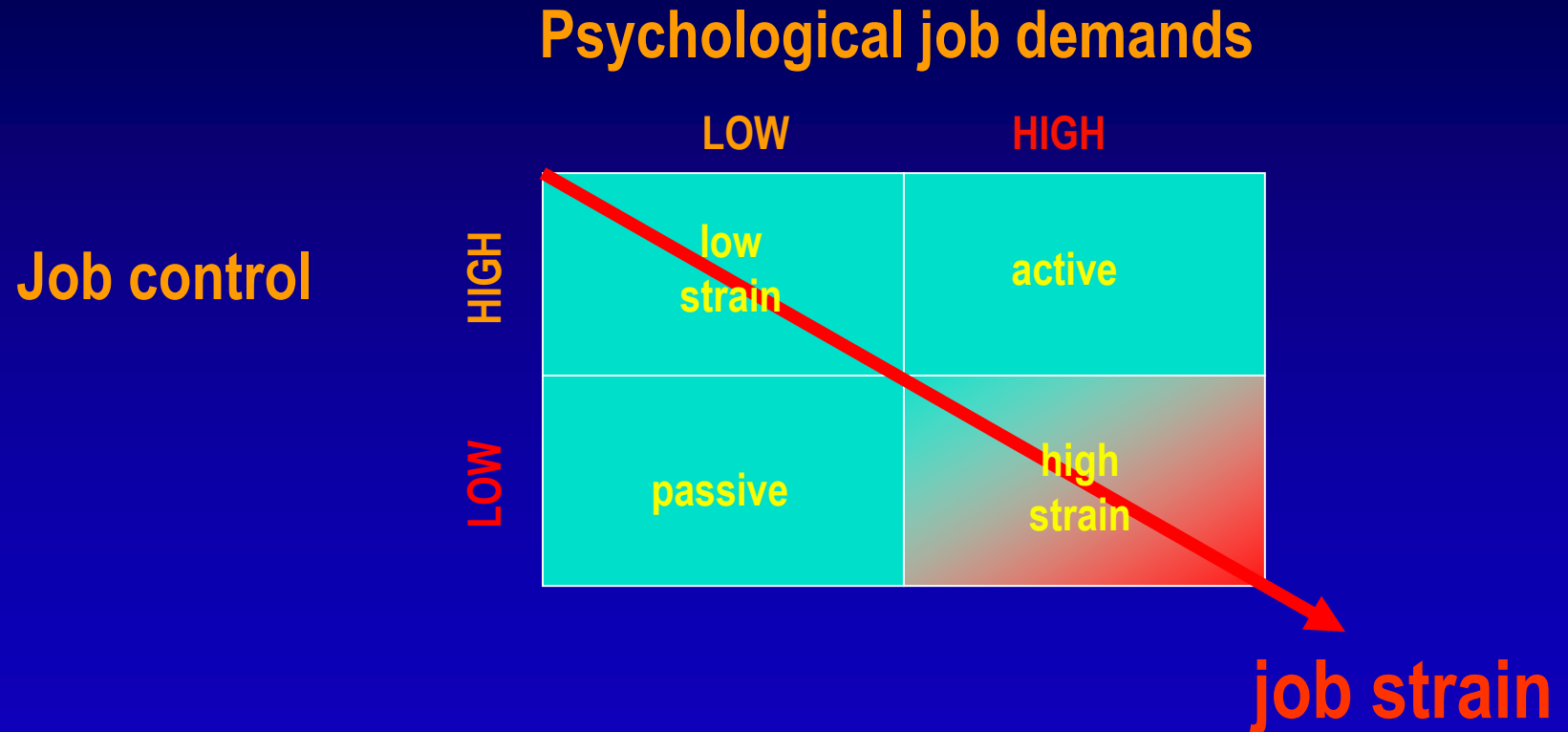
Evaluation: which components are required?

- Cardiac, medical clearance
- Structured interview
- Follow up, include partner
- Referral base of mental health professionals
- Consider cardiac rehab, stress management
- All are required

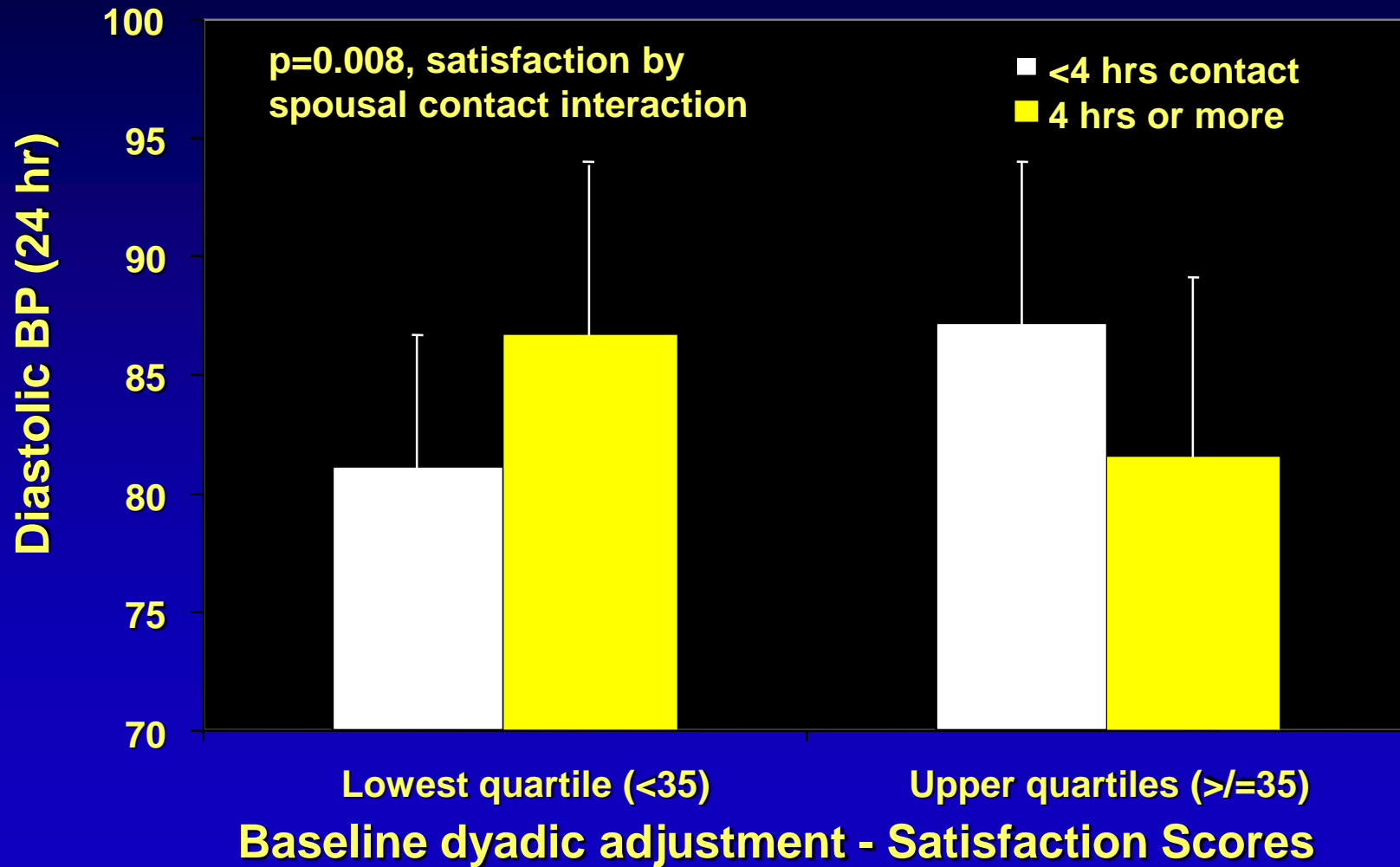
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Karasek's Job Strain Model



Marital Satisfaction and Spousal Contact



Counselling the Cardiac Patient includes: Which statements are correct?

- Supportive communication
- Interpersonal psychotherapy theme of role transition
- Cognitive Therapy themes
- Cardiac Rehabilitation Programme
- All are correct

Treatment of the Cardiac Patient with mild psychological distress includes:
Which statements are correct?

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Supportive Communication

1. Define the problem
 - “What are your concerns about having a cardiac event? “
2. Provide information
 - “Sometimes patients start to change what they do because of the event.” “Is this something you have done?”
3. Normalize fears and elicit emotional release
 - “It’s a normal reaction to feel stressed after a cardiac event. Can we discuss your feelings about the event?”
4. Instill hope
 - “Over time, you will adapt to your cardiac event”
5. Encourage patient to take action
 - “We want you to take an active role in your care.”

Cognitive therapy for cardiac patients with psychological distress: Which statement is incorrect?

- Education
- Relaxation techniques
- Deal with cognitive distortion
- Always work through the problem
- Perceived control is a key concept

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Cardiac Rehab Programs

Exercise

Supervision

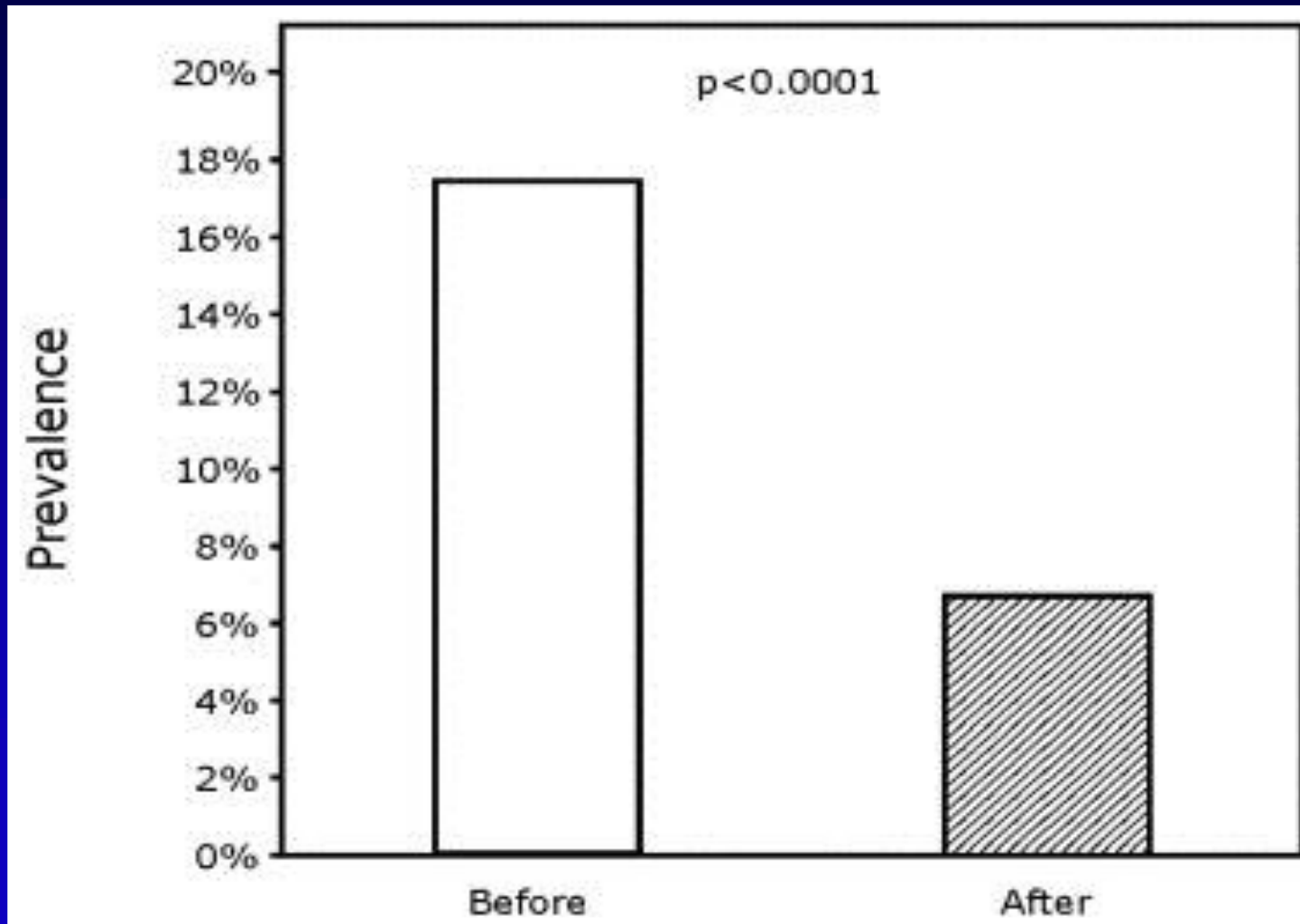
Education

Group or individual effect

***Stress management programs
including Mindfulness programs***

Benefits of Cardiac rehab and Exercise

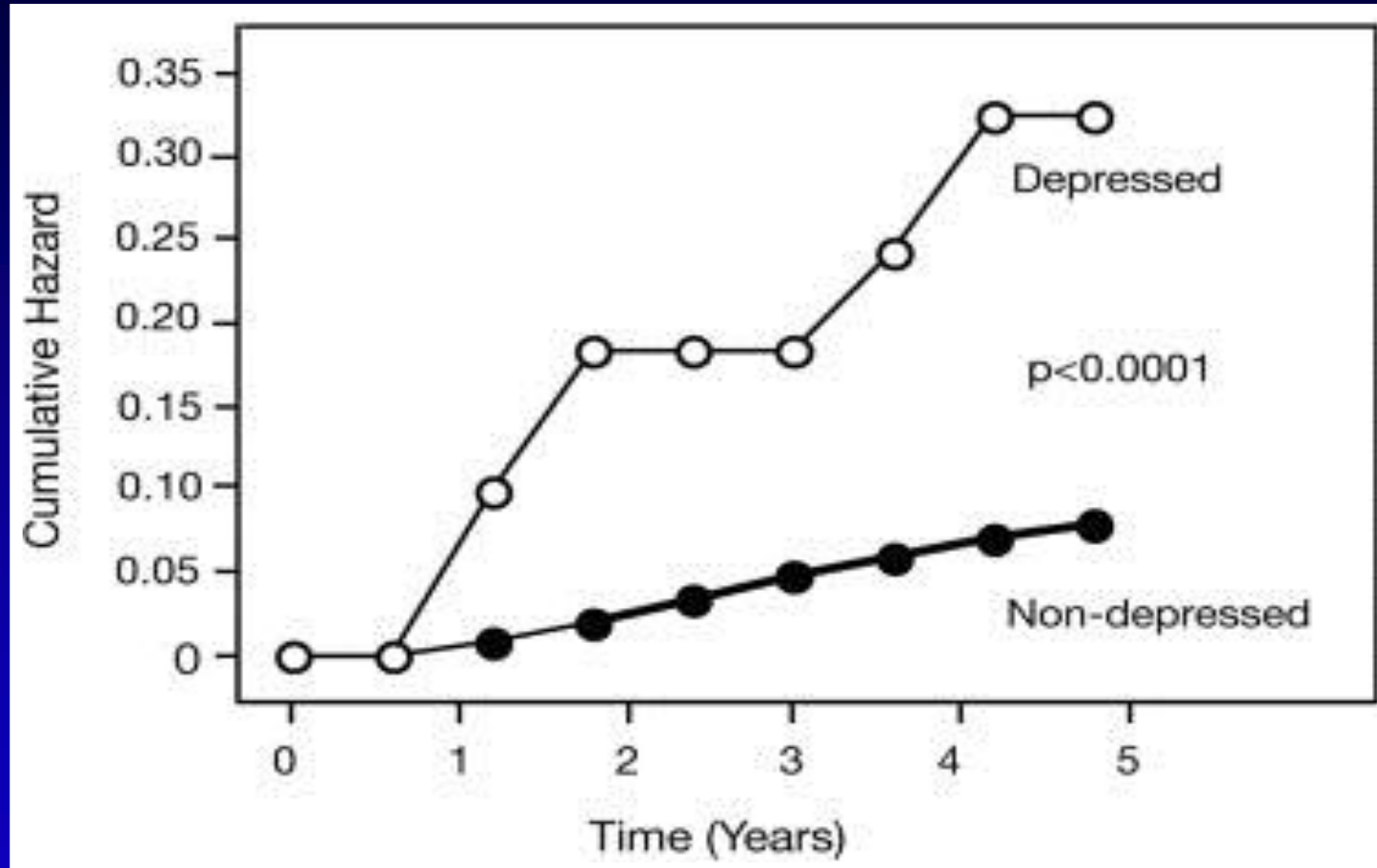
Changes in prevalence of depression following cardiac rehabilitation & exercise training ($n = 522$)



Source: [American Journal of Medicine, The 2007; 120:799-806](#)

Survival time based on depression status

upon completion of cardiac rehabilitation and exercise training (n=5522)



Mindfulness Based Stress Reduction (MBSR)



■ MBSR

- Group therapy, high adherence
- Meditation and yoga as stress treatment
- Promote “relaxation response”

■ MBSR as a complementary therapy

- Chronic pain, cancer, mood disorders

■ MBSR and blood pressure

- Symptoms of stress; Cortisol levels
- The HARMONY Study, meta analysis: relaxation Rx as adjunct