## DEPRESSION & CARDIOVASCULAR DISEASE

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 This talk summarises the following paper – Hare et al 2014 Depression and cardiovascular disease: a clinical review. European Heart Journal 35, 1365-1372



## TOPICS

- Diagnosis
- Epidemiology
- Prognosis
- Other psychosocial issues
- Management
- Screening tools



## WHY IS THIS SUBJECT IMPORTANT?

- Cardiovascular disease (CVD) & depression common & disabling
- Rising medical costs
- Increasing health service utilisation
- Lost productivity
- Profound impact on quality of life

## DIAGNOSIS OF DEPRESSION

- Spectrum
  - short lived flat mood to
  - serious clinical syndromes which are severe disabling & recurrent
- Cardinal features
  - Depressed mood & anhedonia (loss of pleasure)
  - Sleep disturbance & Fatigue
  - Poor concentration

## SYNDROMAL CLUSTERS IN CARDIAC PATIENTS

- Dysthymia chronic depression 2 years
- Grief a reaction to loss
- Adjustment disorder with depressed mood a time-limited reaction to an event – this is the most common variant after a coronary event (or other serious event)
- Major depressive disorder high risk further events, poor Quality of life (QOL), requires Mx

## EPIDEMIOLOGY

- Mild depression in 2/3 of hospitalised with Acute Myocardial Infarction (AMI)
- Major depression 15% of hospitalised with AMI
- Major depression 20% of hospitalised with Chronic Heart Failure (CHF) related to functional class
  - 40% with severe functional impairment
  - Depression in CHF independent predictor of mortality and rehospitalisation
- Cardioverter defibrillator 25% are depressed-more shocks more likely to be depressed

## AETIOLOGY

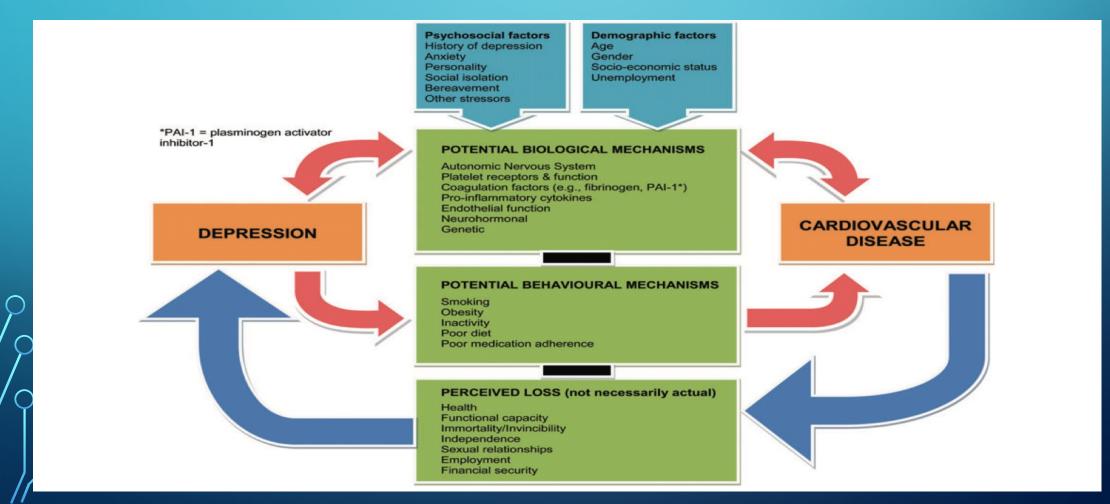
• Depression is more common in cardiac patients – 3X

• Depression is a <u>risk marker</u> for increased incidence of new CVD (aetiology)

• Depression is a risk marker for worse outcome in existing CVD (prognosis)

• Depression same risk category as dyslipidemia and C – reactive protein

## POSSIBLE RELATIONSHIP DEPRESSION & CVD



## PROGNOSIS

# 01

Powerful predictor of survival after AMI & in CHF patients

# 02

Depression and AMI 3X Mortality after adjusting for age, sex, smoking, clinical severity & LVEF

# 03

Also true for unstable angina

### DEPRESSION AND OTHER PSYCHOSOCIAL ISSUES

Anxiety common often comorbid with depression independently associated with mortality & early anxiety predicts depression

Depression most important driver of quality of life for both Coronary Artery Disease (CAD) & CHF

Social isolation associated with subsequent mortality, and depression and social isolation are connected

Close association between depression and medication adherence & are less likely to engage in beneficial lifestyle behaviours

- Cardiac rehabilitation programs
  - Reduce emotional, psychosocial and physical sequelae
  - Set pattern for long-term secondary prevention
  - Key components are education reassurance and physical exercise
  - Improve depression and quality of life
  - Unclear if it's the exercise of group dynamics which improve the depression

- Aerobic exercise programs in a group setting reduce depression
  - Similar magnitude of effect as antidepressants

#### • Talking therapies

- General support is probably effective but hasn't been tested unethical to try
- Cognitive behaviour therapy and problem-solving– Variable evidence – small treatment effects – maybe benefit those not responding to antidepressants – antidepressants provide more rapid remission

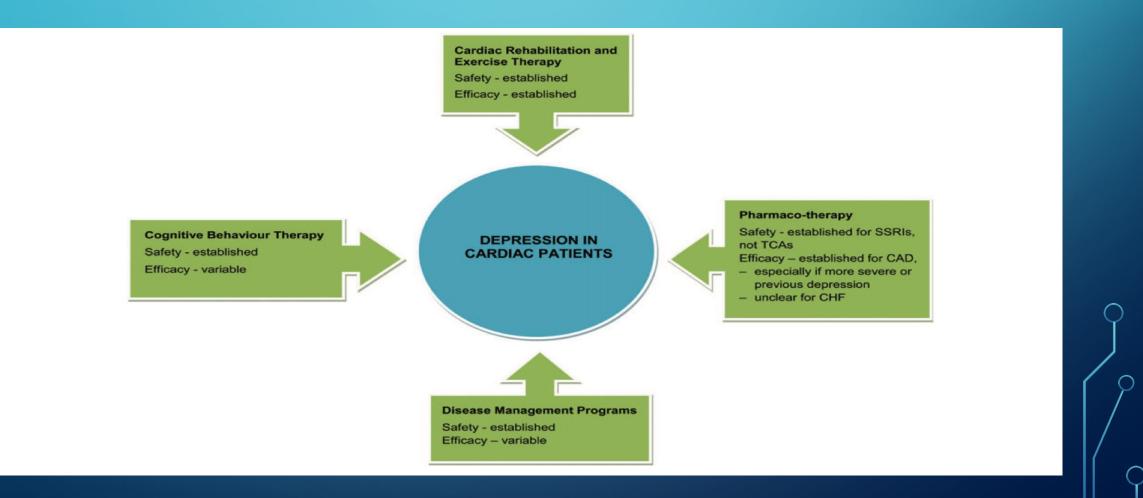
### Pharmacology

- SSRIs demonstrated to improve depression in cardiac patients
- SSRIs may reduce cardiac events 39 % reduction in all cause mortality
- Escitalopram and Sertraline on effective and well tolerated
- Tricyclic antidepressants are likely to lengthen cardiac myocyte action potentials because of their effect on the outward potassium current ->increase QT

### • Disease management programs

- And to optimise medication regimes
- Improve adherence and self-care
- Through education & skills-based training
- Efficacy for cardiovascular patients uncertain

### THE EFFECTS OF INTERVENTION ON DEPRESSION IN CARDIAC PATIENTS



## SCREENING

- Many tools
- Patient health questionnaire
- Hospital anxiety depression scale
- European Heart Association recommends 2 questions
  - Do you feel down, depressed or hopeless?
  - Have you lost interest and pleasure in life?

## SUMMARY

- Cardiovascular disease is a leading cause of death, disability and disease burden in Australia
- Depression is common in CVD
- Depression in CVD is linked to high mortality and morbidity
- There is enough evidence to recommend exercise, talking therapies, and antidepressants to reduce depression in CVD patients