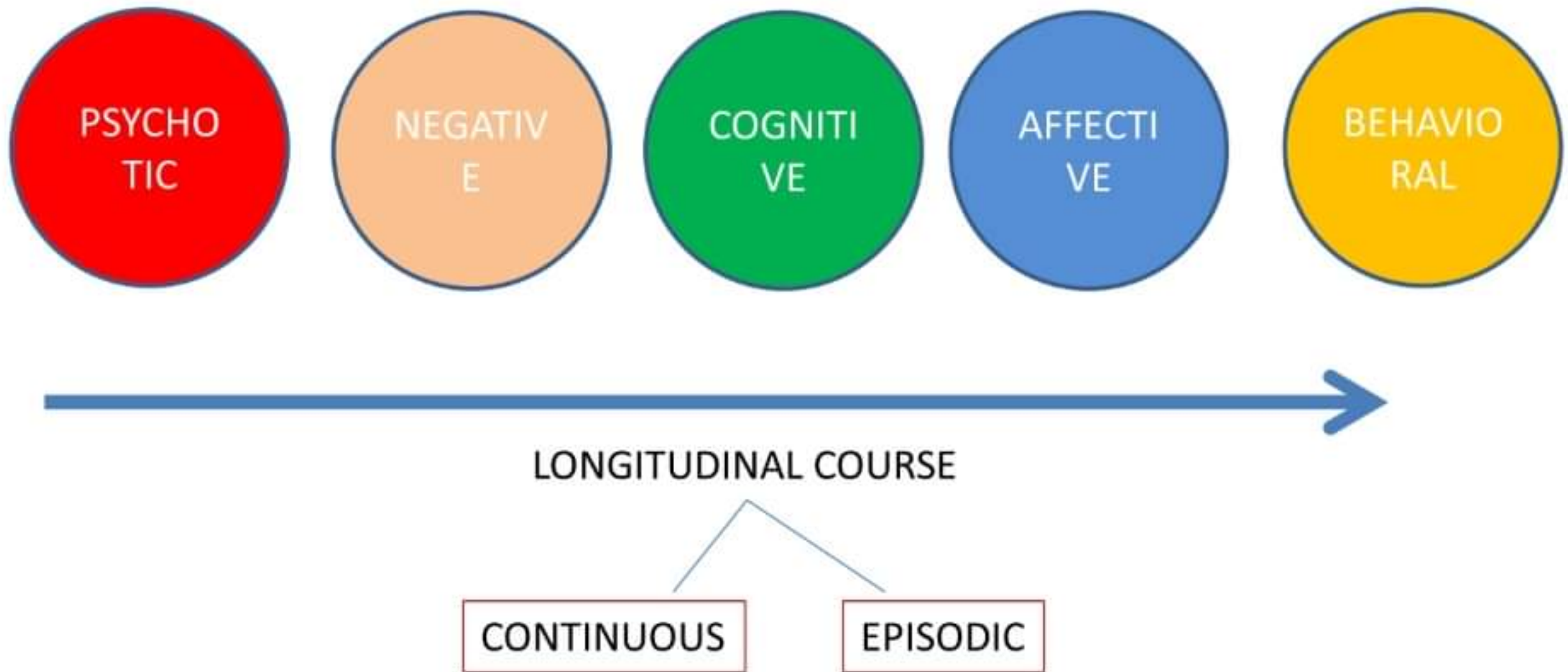


# Schizophrenia



# Schizophrenia



# Schizophrenia –ICD-10

- a) thought Echo/insertion/withdrawal/broadcasting
- b) Delusions of control/Delusional perception
- c) hallucinations- 3<sup>rd</sup> person/ in the form of a commentary/ somatic
- d) other delusions-culturally inappropriate/impossible
- 1 clear / 2 or more if not clear for > 1 month
- OR

- e) persistent hallucinations/ persistent overvalued ideas
- f) disorganized speech/neologisms
- g) catatonia
- h) negative symptoms
- Symptoms from 2 or more groups(e to h) for > 1 month

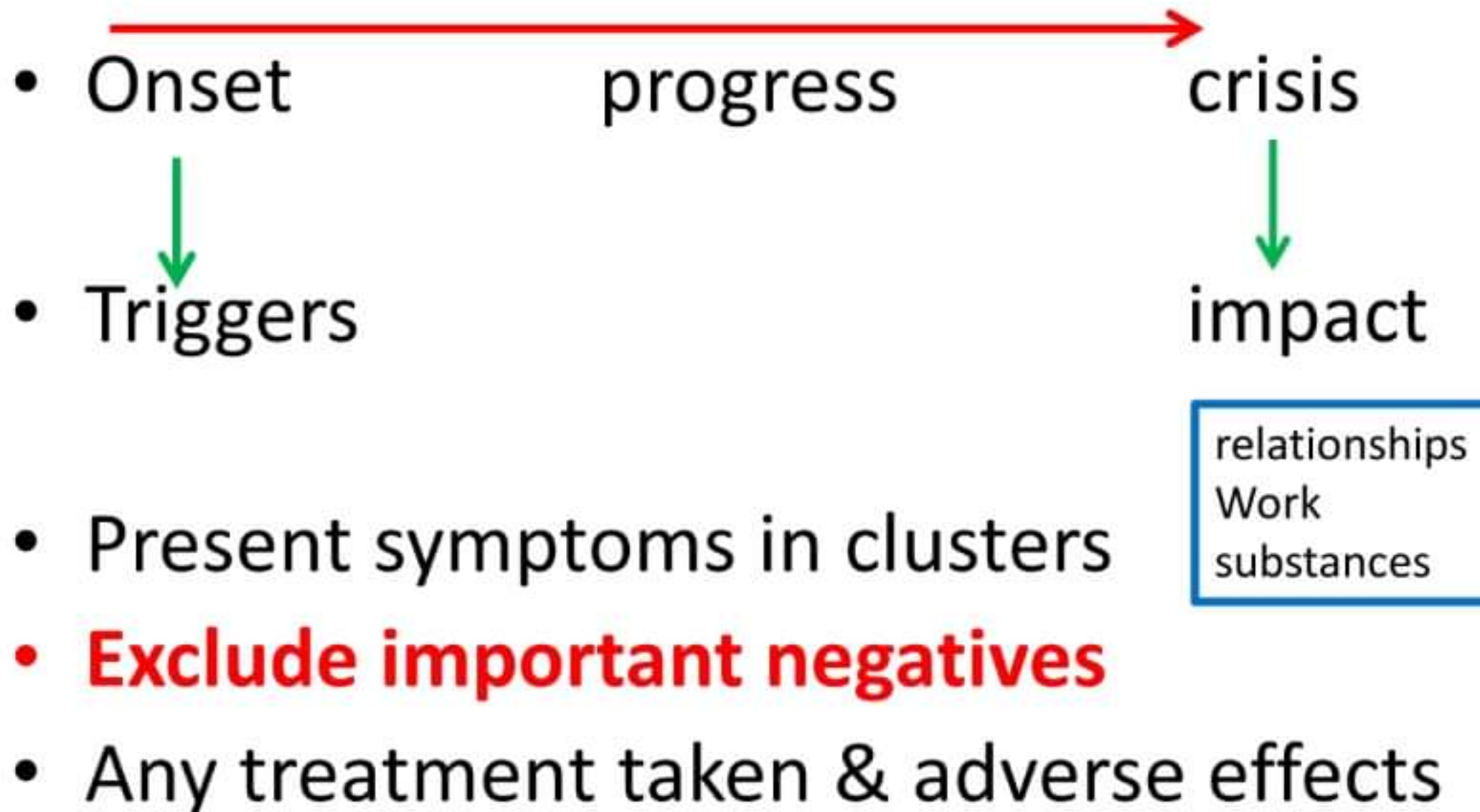
# Schneider's 1<sup>st</sup> rank symptoms

- Thoughts – blurring of ego boundary
  - 1) insertion or withdrawal
  - 2) broadcasting
  - 3) delusions of control ( passivity phenomena)
- Perceptions
  - 4) hearing thoughts spoken aloud
  - 5) third person hallucinations
  - 6) hallucinations in the form of a commentary
  - 7) somatic hallucinations
- 8) Delusional perception

**Delusions of Possession  
Of thoughts**



- **History of presenting complaint**



- Schizophrenia

- He did not think thoughts are inserted into or/withdrawn or broadcasted from his mind.
- He did not believe an outside agency is controlling his actions/thoughts or impulses.
- He did not hear voices of unseen persons discussing him or commenting about his actions

Based on 1<sup>st</sup> rank symptoms

# Past psychiatric/medical Hx

- Episodes
  - Number
  - Nature
  - Severity (hospitalization/ suicidal attempts)
  - Reasons for relapses
- Rx
  - Type-ECT/Clozapine?
  - Response
  - SE
- Other medical problems & Rx



- F20.4 Post schizophrenic depression
  - Has had a schizophrenic illness within past 12 months
  - Some schizophrenic symptoms( + or -) still present
  - Criteria for a depressive episode( F32.\_) present
- Associated with high suicidality

	Biological	Psychological	Social
Acute	<ul style="list-style-type: none"> <li>• Anti-psychotics</li> <li>• ECT</li> <li>• Optimize medical Mx</li> </ul>		
In ter me di ate	<ul style="list-style-type: none"> <li>• Substance Mx</li> <li>• Wgt Mx</li> </ul>	<ul style="list-style-type: none"> <li>• High EE</li> <li>• Compliance</li> <li>• Rehabilitation</li> </ul>	<ul style="list-style-type: none"> <li>• Functional assessment</li> <li>• Needs assessment</li> </ul>
Long term	<ul style="list-style-type: none"> <li>• IM medication</li> <li>• Family planning</li> </ul>		<ul style="list-style-type: none"> <li>• Legal</li> <li>• Child care</li> </ul>

# Mx of Schizophrenia

## Maintenance

- FGA or SGA
- Or LAI



## First episode

- Better to avoid Olanzapine
- FGA or SGA
- Minimal effective dose
- FGA=SGA (EUFEIST)

## Rx responsive multi episode

- FGA or SGA
- FGA=SGA (CATIE & CUtLASS)

## Rx resistant

- Clozapine

# FGA or SGA

- Side effects
- Patient choice
- Previous response
- affordability

# Main side effects

- EPS including TD
- Metabolic including weight gain
- Prolactin elevation & sexual problems



- relative risk for EPS among FGAs and SGAs
- high-potency FGAs > risperidone > low-potency FGAs > olanzapine > quetiapine > clozapine
- High potency FGA: Haloperidol
- Low potency FGA: Chlorpromazine

# Long acting injectable antipsychotics (LAI)

- Fluphenazine deconoate -6.25-20 mg/2 weeks
- Haloperidol deconoate -50-200 mg/month
- Risperidone – 25-75mg/2 weeks

# CLOZAPINE

- Resistant Schizophrenia
- Persistent hostility/persistent violent behavior
- Persistent suicidal thoughts/ behaviour

# CLOZAPINE THERAPY





- Suitability
  - No adequate response to adequate doses of sequentially used 2 different antipsychotics. At least one of them non clozapine atypical ( for how long?) refer Maudsley
  - 1/3 of pts do not respond to antipsychotics or intolerant. Clozapine is the choice for them
  - 1/3 of such pts respond to Clozapine

- Educate patient & family regarding
  - Reason for considering Clozapine
  - Treatment setting
  - Monitoring
  - Side effects
  - Restarting after discontinuation



- Before starting
- General & CVS examination
- Smoking status
- FBC
- FBS
- Lipid Profile
- Liver function tests
- Serum electrolytes (hypokalaemia increases risk of QTc prolongation)
- Hx of other drug use ( anti convulsants)
- ECG
- BMI
- Pregnancy test – for women in child bearing age

# DOSING

- 12.5mg( or 25 mg)  100 mg 1<sup>st</sup> week
  - 100mg  300mg 2<sup>nd</sup> week
  - 300mg  400mg 3<sup>rd</sup> week
  - 400mg  450mg 4<sup>th</sup> week
- 
- Target a plasma level of 350-500 ug/l

# Reasons for slow titraion

- Autonomic side effects ( orthostatic hypotension)

# Monitoring

- 1<sup>st</sup> day
  - BP,Pulse- before 1<sup>st</sup> dose, 15 min after 1<sup>st</sup> dose, hourly for 6 hours
- If BP >170/100 or < 100/60 or postural drop >30mmHg or
- PR >100/min or
- Temperature >38.4C or < 35.5C
- Consider much slower titration or omitting

- Days 2 to 14
- BP,PR,Temperature before & 2 hours after morning dose
- Days 15 to 28
- BP,PR,Temperature 2 hours after morning dose



- BP,PR,Temperature & weight should be monitored during routine blood testing

# Monitoring blood

- FBC before starting Clozapine. Need  $WBC > 3500/mm^3$  & Neutrophils  $> 2000/mm^3$
- if counts are low get haematology opinion
- Weekly WBC/DC for 18 wks
- Fortnightly for 1 yr
- Monthly thereafter

## Traffic light notification

- During weekly blood monitoring
- Green (normal)= WBC>3500 & Neutrophils>2000
- Can dispense Clozapine

- Amber(caution)= WBC 3500-3000 & N 2000-1500
- Repeat counts & confirm
- Can dispense Clozapine but monitor counts twice a wk till counts become normal

- Red( Danger)=  $WBC < 3000$  &  $N < 1500$
- Repeat counts & confirm
- Stop Clozapine immediately. Do not give other anti psychotics
- Monitor blood daily (needs admission most times)
- Get haematologist's opinion
- Monitor closely for infections



# Clozapine discontinuation

- Gradually over 2 wks ( reversal of initiation)
- Observe for
  - Recurrence of psychosis
  - Symptoms of cholinergic rebound (profuse sweating, headache, nausea, vomiting, diarrhoea)

# SE of Clozapine & dealing with them

- Common side effects
- Anti-cholinergic
  - Constipation ( high fiber diet/ fluid/ aperients)
  - Dry mouth
  - Blurred vision
  - Difficulty passing urine

- Anti-adrenergic
  - Hypotension ( caution when getting up/monitor closely/slow titration or halt dose increase)
  - Sexual dysfunction
- Other
  - Hypersalivation (consider hyoscine [300 ugs/tds])
  - Hypertension (monitor closely/ slow titration or halt dose increase/may need a hypotensive agent[atenolol])

# Rarer or potentially life threatening SE of Clozapine

- Agranulocytosis/Neutropenia (stop Clozapine & admit to hospital)
- leukocytosis
- Thrombocytopenia (if  $\text{Plat} < 50000/\text{mm}^3$  stop Clozapine)
- Arrhythmias/myocarditis/cardiomyopathy/pericarditis/pericardial effusion/ thromboembolism/ circulatory collapse

# Rarer or potentially life threatening SE of Clozapine

- Pulmonary embolism
- Dysphagia/Intestinal obstruction/paralytic ileus
- Enlarged parotid/ fulminant hepatic necrosis
- Restlessness/agitation/confusion/delirium
- Neuroleptic malignant syndrome

# Smoking cessation in Schizophrenia

- Bupropion 150 mg/BD for 12 weeks
- Smoking cessation education
- Support group

# Psychosocial Mx of Schizophrenia

- All as an adjunct to pharmacological Rx
- Following have evidence (PORT STUDY)
  - CBT
  - Supported employment
  - Family based interventions
  - Psychosocial interventions for substance use
  - Psychosocial interventions for weight management
  - Skills training
  - Token economy
  - Assertive Community Treatment (ACT)



# Supported employment

- Individuals are placed in competitive work without any extended preparation but with support on the job
- More effective than vocational rehabilitation in obtaining open employment
- Burns 2007- 50% of psychotic patients became employed with this approach

# Family based interventions

- For those who have ongoing contacts with families/relatives & significant others
- Effective for
  - Treatment adherence
  - Reduced symptoms
  - Reduced burden for family members
  - Improved relationships

### Box 3 Distinguishing normal from obsessional jealousy (Marazziti *et al*, 2003)

The following are more extreme in obsessional jealousy:

- time taken up by jealous concerns
- difficulty in putting the concerns out of the mind
- impairment of the relationship
- limitation of the partner's freedom
- checking on the partner's behaviour



## Box 6 Assessment of morbid jealousy

Take a full psychiatric history, including:

- affective and psychotic disorders
- threatened and perpetrated violence
- the quality of the relationship
- family constitution
- substance misuse
- collateral and separate history from spouse

Carry out a mental state examination, including:

- the form of morbid jealousy
- associated psychopathology
- consideration of organic disorder

Conduct a risk assessment for both partners, considering:

- suicide
- history of domestic violence
- history of interpersonal violence, including any third party (e.g. suspected rival)
- risk to children

## Box 7 Management of morbid jealousy

Principles of management:

- Treat the mental disorder
- Manage the risk

Biological options:

- Antipsychotic medication
- Selective serotonin reuptake inhibitors

Psychosocial options:

- Treatment of any substance misuse
- Cognitive-behavioural therapy
- Couple therapy
- Dynamic psychotherapy
- Child protection proceedings
- Admission to hospital (compulsory detention if necessary)
- Geographical separation of the partners