First Episode Psychosis

RANZCP Webinar series for rural trainees
Tuesday 7 July 2015
Webinar outline

• Introduction & Housekeeping
  
  **Dr Greg Young**, Clinical Senior Lecturer, Department of Psychological Medicine, Otago University and member of the RANZCP Rural Psychiatry Working Party.

• Interventions to improve outcomes in schizophrenia: how early?
  
  **Prof David Castle**, Chair of Psychiatry, St Vincent’s Hospital Melbourne and the University of Melbourne. Professor Castle is the Chair of the Victorian Branch, RANZCP

• First Episode Psychosis
  
  **Dr Dominiek Baetens**, Deputy Director Clinical Services, Early Psychosis Consultant, St Vincent’s Mental Health

• Questions and Answers
  
  Participants (that’s you!) & presenters
Housekeeping

• The presenters can’t see or hear you, so if you are experiencing technical problems please telephone 1800 733 416 for IT assistance.

• Please dial in and listen via telephone
  Australia - Dial 1800 896 323
  New Zealand – Dial 0800 441 984
  then enter the pass code 31995035#

• Use the chat box to ask for assistance
Audience participation

- Let us know who’s participating

- Send in your questions. Use the chat box!
Interventions to improve outcomes in schizophrenia: how early?

Prof David Castle

Chair of psychiatry, St. Vincent's hospital Melbourne and the University of Melbourne. Chair of the Victorian branch, RANZCP
Study of high impact psychosis: SHIP (2010)

- 7 catchments across 5 States covering 1,319,519 people

- Total number interviewed (Apr–Dec 2010): 1,825 (screen positive) + 164 (screen negative)

- Two phase design:
  - Phase 1:
    - Census month March 2010: those in contact with services were screened for psychosis
    - 11 months prior to census: all administrative records were scanned for psychosis
  - Phase 2:
    - Randomised stratified sampling by age group (18–34, 35–64)

Morgan et al. ICOSR 2011
### Findings: mental health

#### Sample overview %

<table>
<thead>
<tr>
<th>Sector source</th>
<th>Race</th>
<th>Age distribution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Census month in-/outpatient</td>
<td>Aboriginal/Torres Strait Islander 5</td>
<td></td>
</tr>
<tr>
<td>Census month NGOs</td>
<td>Born in Australia 85</td>
<td></td>
</tr>
<tr>
<td>11 months prior in-/outpatient</td>
<td>Single, never married / defacto 73 44</td>
<td></td>
</tr>
<tr>
<td>11 months prior in-/outpatient</td>
<td>Currently married / defacto 12 24</td>
<td></td>
</tr>
<tr>
<td>11 months prior in-/outpatient</td>
<td>Own children (any age) 26 56</td>
<td></td>
</tr>
<tr>
<td>11 months prior in-/outpatient</td>
<td>Dependent children / step at home 6 24</td>
<td></td>
</tr>
</tbody>
</table>

#### Age group

- **18 – 34 years**: 43
- **35 – 64 years**: 57

#### Sex

- **Male**: 60
- **Female**: 40

**TOTAL SAMPLE SIZE**

N=1825

Morgan et al. ICOSR 2011
### Findings: mental health

#### Diagnostic profile %

<table>
<thead>
<tr>
<th>Category</th>
<th>ICD-10</th>
<th>DSM-IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not meet criteria for psychosis, severe depression</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>48.1</td>
<td>42.7</td>
</tr>
<tr>
<td>Schizoaffective disorder</td>
<td>14.7</td>
<td>13.1</td>
</tr>
<tr>
<td>Bipolar, mania</td>
<td>17.0</td>
<td>18.1</td>
</tr>
<tr>
<td>Depressive psychoses</td>
<td>4.6</td>
<td>8.4</td>
</tr>
<tr>
<td>Other psychoses</td>
<td>5.1</td>
<td>10.8</td>
</tr>
<tr>
<td>Severe depression without psychoses</td>
<td>8.7</td>
<td>5.2</td>
</tr>
</tbody>
</table>

#### Age at onset %

- Male
- Female

Morgan et al. ICOSR 2011
Age at first presentation

Selvendra et al, 2014
Findings: mental health

Symptom profile %

Course of illness %

Morgan et al. ICOSR 2011
Findings: physical health

Level of physical activity%

- Sedentary: 19% (Population data), 34% (Psychosis survey)
- Low: 63% (Population data), 54% (Psychosis survey)
- Moderate/high: 27% (Population data), 3% (Psychosis survey)

Body mass index %

- Underweight or Normal: 45% (Population data), 24% (Psychosis survey)
- Overweight: 35% (Population data), 30% (Psychosis survey)
- Obese: 46% (Population data), 20% (Psychosis survey)

Morgan et al. ICOSR 2011
Salient issues facing those with psychotic illness in 2010

“What are the three most important challenges you will face in the coming year?”

- Financial problems 43%
- Loneliness and social isolation 37%
- Lack of employment 35%
- Physical health concerns 27%
- Uncontrolled symptoms of mental illness 26%

Morgan et al. ICOSR 2011
The long term course of psychotic disorders

One episode only -
No impairment
22%

Several episodes with no or minimal impairment
35%

Impairment after the first episode with subsequent exacerbation and no return to normality
8%

Impairment increasing with each of several episodes and no return to normality
35%

Figure 2. Graded course of illness in first-admission schizophrenics as indicated by episodes of illness, symptomatology and social impairment at assessments during five years (n=49). Reproduced from Shepherd M, Watt D, Falloon I, Smeeton N. The natural history of schizophrenia: a five-year follow-up study of outcome and prediction in a representative sample of schizophrenics. Psychological Medicine Monograph Supplement 15. Cambridge: Cambridge University Press, 1989.
Psychosis across the life cycle (a)

Figure 1
Is adolescence a psychotic state?

- Imaginary audience (IA): “an adolescents belief that he/she is the focus of attention and everyone around them is as concerned and critical about their behaviour as they are”

- Personal fable (PF): “the adolescent experience of feeling unique, invulnerable, and omnipotent”

Elkind & Bowen, 1979
Is adolescence a psychotic state?

Overlap of imaginary audience and personal fable with attenuated positive symptoms

• Imaginary audience characteristics measured by the new Imaginary Audience Scale
  – The belief that you are constantly the focus of attention
  – Heightened self consciousness
  – Over concern with the thoughts of others
  – A tendency to anticipate the reactions of other in real and imagined situations

• SIPS questions: suspiciousness/persecutory ideas
  – Do you ever feel that people around you are thinking about you in a negative way?
  – Do you ever feel like you are being singled out or watched?

Carol & Mittal, 2015
Is adolescence a psychotic state?

Overlap of imaginary audience and personal fable with attenuated positive symptoms

- Personal fable characteristics measured by the New Personal Fable Scale
  - The belief that you are unique, invulnerable and omnipotent

- SIPS questions: grandiose ideas
  - Do you feel you have special gifts or talents/are usually gifted in any particular area?
  - Have you ever behaved without regard to painful consequences
  - Do people tell you that your plans or goals are unrealistic?
  - Do you ever think of yourself as a famous or particularly important person?

Carol & Mittal, 2015
UHR Approach

• Is it possible predict who will go on to develop psychosis?
  – Signs and symptoms very non-specific
  – Transition rates very dependent upon sampling base (law of diminishing returns)

• Yung et al, 2010
  – 115 UHR individuals (from 464 eligible) + 78 ‘monitored’ (not randomised)
  – Randomised to CT + risperidone, CT + PBO, supportive care + PBO
  – 6 month relapse rates:
    • CT + risperidone: 8 (7%)
    • ‘monitored’ group: 4 (5%)

• Morrison et al, 2012
  – 288 UHR individuals
  – 23 (8%) transitional

Carol & Mittal, 2015
Intervening for psychosis: who to target? The sampling frame problem

Werbeloff et al (2012)

- 4,914 persons aged 25-34 years screened for psychopathology
- 57% “weak” and 14% “strong” attenuated psychotic symptoms (APS)
- Positive predictive value for non-affective psychosis 1.27%
- ↑ risk for non-affective psychosis (OR 4.31) but also other disorders (OR 2.21)
UHR Approach: with what to “treat”?  

- De Koning et al, 2009  
  - Review of published UHR intervention studies: “…the data concerning  
  - the benefits and risks do not justify prodromal intervention…”

- Yung et al, 2010  
  - No difference between risperidone, cognitive therapy and supportive care  
  - or simply being monitored

- Morrison et al, 2012  
  - No benefit for expert psychological intervention

- Amminger et al, 2008  
  - 81 UHR individuals  
    - Randomised to 12 weeks of omega-3-fatty acids or PBO  
    - Transition rates (40 weeks):  
      - FFAs: 2 of 41 (4.9%)  
      - PBO: 11 of 40 (27.5%)
UHR approach: those who don’t transition

- **Velthorst et al, 2011**
  - 3 year follow-up of 77 UHR individuals who did not transition
  - 75% remitted from UHR status recovered’ from positive, negative and disorganisation symptoms

- **Addington et al, 2011**
  - 2.5 year follow-up of 111 UHR individuals who had not transitioned
  - significant improvement in attenuated symptom ratings
  - improved GAF and social and role functioning
Relapse after “first psychosis”

• WHO Collaborative Study, 1978-79
  – Broadly diagnosed incident sample of schizophrenia & related disorders
  – Age 15-44 yr

• Wiersma et al, 1998
  – Gronigen (Netherlands): 15 year ff-up of 85 cases
  – 2/3 had at least one relapse
  – 26% “complete remission”
  – 40% 2 or more episodes with negative syndrome, or chronic psychotic all the time
  – 11% suicided

• Thara et al, 1994
  – Madras (India): 10 year ff-up of 90 cases
  – 53% completely remitted
  – only 6% continuously psychotic
  – 4% suicided
Prospective Studies:

• May et al: 1st episode admissions to Camarillo State Hospital in 1950’s:
  – patients randomly assigned to either milieu therapy, psychotherapy, ECT, antipsychotics alone or antipsychotics plus psychotherapy.
  – those who received ECT or antipsychotics did best

• Wyatt (1997): longer-term follow-up of May’s patients:
  – believed those patients ultimately requiring Rx would do worse in long term, but in fact did better (2yr & 6yr)

• Johnstone et al (1986): Northwick Park study (n=253):
  – longer DUP, worse outcome at 2yrs
  – 120 pts entered placebo/neurolept maintenance trial: medicated patients did better
Netherlands (Linszen et al, 2004)

- 180 1st episode patients followed over 3 years
- 57% remitted but 43% at least one relapse
- Special intervention benefit for 60%, but 40% “treatment reluctant” and did badly
- Any gains made were lost after intervention stopped
  - lack of insight (OR 3.00)
  - non-compliance (OR 2.23)
  - cannabis use (OR 2.28)
Outcomes following “early intervention” (c)

LEO, London (Craig et al, 2004)

- RCT vs. TAU
  - 18 month outcomes better for global functioning, hospitalisation rates, vocational and social parameters
  - no difference in relapse rates after controlling for baseline ethnicity and prior psychotic episodes
  - 5 year follow-up gains lost: indeed, once intervention stopped, patients did even worse than controls
Outcomes following “early intervention” (d)

OPUS, Denmark (Bertelsen et al, 2008)

• RCT vs. TAU
  – 2 year outcomes better for homelessness, psychotic symptoms, substance use, global functioning
  – High attrition rates and non-blinded assessments = bias
  – 5 year follow-up gains lost in terms of symptoms, substance use and global functioning
Outcomes following “early intervention” (e)

EPPIC Australia (Henry et al, 2010)

- 723 1st episode patients followed over 7 years; no control group
- Schizophrenia and schizophreniform combined (n=347)
- Only 22% achieved social/vocational recovery and only 15% achieved social, vocational and symptomatic recovery
- Yet authors conclude that these are ‘relatively positive outcomes’
- And further that these outcomes are ‘consistent with a beneficial effect of specialised early intervention programs’
Outcomes following “early intervention” (f)

mACT Sweden (Boden et al, 2011)

- 144 1st episode patients followed over 5 years; historical control group
- mACT marginally worse on positive symptoms (OR 3.21; 0.97-10.63)
- No difference on negative symptoms (OR 1.65; 0.48-5.66)
- No differences on secondary outcomes, including:
  - GAF
  - Alcohol and illicit substance use
  - Working or in education
  - Independent living
  - Satisfaction with life
Outcomes following “early intervention”

‘Faith before facts’ (Bosanac, Patton, Castle, 2010)

‘Emperors new clothes’ (Castle, 2010)

- Seems very clear most early gains are lost
- Puts paid to ‘prevention’ assertion
- Merely shows good treatment good for patients!
- No justification for youth focus (many patients onset after 25)
- No justification for specialised services, indeed:
  - Can achieve good fidelity using integrated model (Petrakis et al, 2010)
  - Silo effects for staff and patients
  - Un-useful transition problems to adult services, with resultant loss and grief (Friis, 2010)
Comprehensive interventions

Liberman & Kopelwics, 2002

• Must appreciate there is no “quick fix” and we require interventions that are “sustained, comprehensive, co-ordinated, collaborative and consumer oriented”.

Factors associated with schizophrenia

- “Genetic”
  - no single gene
  - no ‘screening’
  - no selection
Factors associated with schizophrenia

- “Environmental”: in utero
  - maternal starvation
  - maternal anaemia
  - maternal hypovitaminosis D
  - maternal influenza type A
  - maternal toxoplasmosis
  - maternal stress
  - obstetric complications
Factors associated with schizophrenia

- “Environmental”: after birth
  - head injury (males)
  - cannabis
Pregnant women with schizophrenia

- Poor antenatal care
- Smoking
- Alcohol and substance use
- Medications
- Worse obstetric outcomes
- Issues with attachment
- Psychosocial problems ++
Very early intervention?

- How early is really early enough?
  - Risk begins at conception
  - Poor antenatal and postnatal care of mothers with psychosis
  - Parenting issues, engagement issues, etc etc.

- Gilmore et al, 2010
  - Structural brain abnormalities demonstrable even as infants (males)

- McGrath, 2010
  - Clearer determination of environmental risk factors opens up potential for ‘prevention’

- University of Melbourne initiative (Judd, Castle, Everall, Pantelis, etc.)
  - Proposed prospective study: “Nurturing the Vulnerable Brain”
  - Multifaceted approach addressing antenatal, postnatal, parenting etc.
  - Proximal and distal outcomes (biological, neurobehavioural, psychosocial, cognitive, etc.)
Very early intervention?

• Nurturing the vulnerable brain
First Episode Psychosis... in the RANZCP assessments

Dr Dominiek Baetens
Deputy Director Clinical Services, Early Psychosis Consultant
St Vincent’s Mental Health
Why examine? Why study?

- Few questions likely, but:
  - lends itself well to examination using
  - the CanMEDS domains
  - controversy, questions about
  - evidence base and community/
    - political expectations

- Opportunity to structure learning in way matching College expectations (as reflected in formative and summative assessments)
Expectations

- Standard; level of theoretical and applied knowledge of a junior consultant
- i.e. examiner comfortable having you take over the treatment of their patients
- In relation to schizophrenia spectrum disorders know in depth
  - Epidemiology
  - aetiology (biopsychosocial, cultural)
  - Symptomatology
  - Course
  - assessment, management (biopsychosocial, cultural)
  - psychiatric and medical comorbidities, differential diagnoses.
Not (just) about the knowledge
but
about application of the knowledge, skills, attitudes
Establishing this...Assessment

The more different ways you learn something, the more you will remember it:

- Work
- Specific learning - FEC, reading, tutorials, seminars, conferences, CPD
- WBAs, EPAs
- Written exams
- Clinical exams
Learning Themes in Early Psychosis

- Engagement
  - non confrontational
  - focus on the practical (employment, education, accommodation etc)
  - developmentally appropriate intervention

- Comprehensive assessment

- Shared understanding - educate, inform, empower

- Stress vulnerability model

- Reduce modifiable risk factors, address comorbidity
• Ethics
  – first do no harm (minimise trauma but be aware that this is a high risk period and that DUP may well influence outcome)
  – autonomy and control
  – informed consent - all options, risks and benefits
• Psychosocial interventions
• Medication - fish oil?, low dose atypical APS, early consideration of clozapine
• Plan including consideration for dose reduction/discontinuation (relapse prevention planning)
• Family involvement
• Full functional recovery
Where to find out?

- In addition to standard texts consider;
  - MCQ specific practice texts (available electronically and in paper form)
  - e.g. sample questions for paper I taken from;
  - Puri BK, Ho RCM and Treasaden IH. Revision MCQs and EMIIs for the MRCPsych.
  - Practice questions and mock exams for the written papers. Hodder Arnold. 2011.
- Guidelines
  - General; The Maudsley Prescribing guidelines in Psychiatry.
- Other treatments;
In assessment: EPAs

- ST1-GEN-EPA6 – Providing psychoeducation to a patient and their family and/or carers about a major mental illness.
  - outlines competency expectations
- e.g. collaborator 1,2 - demonstrates ability to work respectfully with [all], demonstrates ability to use interpersonal skills to improve outcomes
  - outlines knowledge, skills and attitude expectations
- e.g. ability to apply an adequate knowledge base
  - principles and aims of psychoeducation, diagnosis, treatment and course of major mental illness, including individual variability and uncertainty...
- benefit of information in improving compliance and engagement, coping, empowering patients... Principles of recovery-oriented practice.
- Tip;
  - use this EPA to structure your thinking in preparation for modified essay questions and OSCEs,
  - use WBAs and clinical encounters as an opportunity to put your knowledge into practice.

https://www.ranzcp.org/Files/PreFellowship/2012-Fellowship-Program/EPA-handbook.aspx
A 20 year old man is referred to the Early Psychosis Team for first episode of psychosis. His mother is very concerned about the prognosis. You have reviewed his medical records. Which of the following factors in this case is most likely to be associated with a poor prognosis.

a) He has a history of cannabis.
b) The diagnosis is not clear and he may suffer from severe mania with psychotic features.
c) This patient came from Nigeria 1 year ago.
d) The patient receives haloperidol and cognitive therapy.
e) The diagnosis is confirmed to be schizophrenia and he is being treated with haloperidol alone.
A 17 year old man is referred to the Early Psychosis team for the first episode of schizophrenia. You prescribe risperidone 1mg nocte. His mother requests an answer from you on the following questions

For each question below, choose one option:

A. 1     B. 2     C. 5     D. 15     E. 25     F. 35     G 45     H. 55     I. 65     J. 75

1. His psychotic symptoms are not controlled. His mother wants to know the minimum effective dose (in mg) of risperidone in his case.

2. His psychotic symptoms are under control. His mother wants to know the duration of antipsychotic treatment (in months) in his case.

3. After eighteen months of treatment, the patient decides to stop the medication. His mother wants to know the risk of relapse as a percentage.
Michael, a 19 year old man is referred for assessment to the local Community Mental Health Centre. Since failing to complete year 12 he has gradually become more socially withdrawn. He smokes cannabis on a daily basis and is generally irritable. His sleep wake cycle is reversed.

Michael has a family history of schizophrenia. His father committed suicide when Michael was eight years old.

1. Outline your approach to engaging Michael in assessment
2. Michael attends the clinic for further assessment. Discuss the assessment process in detail.
3. After a comprehensive assessment you decide that while Michael does not show evidence of current psychotic symptoms he is at some risk of developing psychosis. Discuss the next steps in the treatment of Michael.
Tips

- Pay attention to the wording
  - list - list
  - outline - list with some justification
  - describe - list with more justification
  - discuss - comprehensive
- Answer in patient specific manner
- Draw on clinical guidelines + clinical experience
• Short Case Scenario
  – Sally presents with first episode psychosis in the context of significant psychosocial decline. Her symptoms are characterised by persecutory delusions and derogatory auditory hallucinations as well as thought broadcasting. There do not appear to be any acute risks to self or other.
  – Discuss the initiation of medication with Sally.

• Long case scenario
  – You are a consultant in a regional area. Dr Marshall, your Director of Clinical Services advises you that funding has become available for the development of an early intervention service in your area and has asked you to be involved in the design of this.
  – You are to meet with Dr Marshall to discuss this opportunity further.
Tips: OSCE

- Every station
  - Use outside time to orient self and identify specific tasks
- For LONG CLINICAL stations ALWAYS cover the following
  - APPROACH
  - ASSESSMENT
  - DIAGNOSIS
  - (RISK)
  - MANAGEMENT
- For SHORT STATIONS use thinking time to FOCUS on two or more of these
  - E.g. short assessment station focus APPROACH (selective history taking) and ASSESSMENT, perhaps also DIAGNOSIS
Tips: OSCE Consultancy

• Have a structure - IB-PPP- R

• INTRODUCTION
  – Why important/interesting/topical
  – Issues – clinical, ethical, social, political
  – Players
  – role

• BACKGROUND
  – Sources : request, other parties
  – Why me (give an answer)
  – Why now (give an answer)
  – Hidden agendas, traps, expectations
  – Context , research, literature

• PREPARATION
  – Research
  – Consult –senior colleague, expert

• PLANNING
  – Problems anticipated (avoid, minimise)
  – Approach, strategy
  – Practical issues
  – Scope of my involvement

• PERFORMANCE
  – What I would do
  – How I would do it

• REVIEW
In assessment: clinical exams - OCI/MOCI - possible differences

- Data gathering process - same
- Data gathering content - broad assessment including evidence of psychosocial decline/DUP/comorbidity/typical coping strategies (locus of control - prognostic indicator)/modifiable risk factors, physical health issues and Fhx of physical issues (prescribing)
- Mental state examination - perplexity at height of episode
- Data synthesis - thorough formulation - first presentation potential to inform subsequent presentations
- Action plan - themes of CPGs come to life - individualise by articulating barriers and how you aim to overcome these
OCI/MOCI - Possible case scenarios

• Acute inpatient FEP - not likely
  – review themes - emphasise engagement, education, family involvement, comorbidity, modifiable risk factors, full range of biopsychosocial treatment choices etc.

• Early treatment resistance
  – assess and address possible reasons (comorbidity, substance use, high EE)
  – consider clozapine early

• Good functional recovery
  – establish residual problems, goals
  – plan for future including self monitoring, stress management, development of relapse presentation plans and advanced care directives
Question and answer

Questions?
Closing comments

• Thank you for your participation

• Help us by completing the exit survey for this webinar

• Continue the conversation on the College online forums www.ranzcp.org/forums
  • Use your College membership details to login
  • Agree to the Terms and Conditions
  • Find our thread in the Clinical Practice issues section titled ‘First Episode Psychosis Webinar discussion’