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SCHIZOPHRENIA Factsheet

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What is early detection?

Early detection refers to the correct identification of individuals who are at high risk of developing schizophrenia, with an emphasis on the development of frank psychosis. Generally, there are two approaches that dictate the characteristics used as markers for detection. The first is the ultra-high risk approach which focuses on a triad of at-risk mental states defined as 1. having a family history of psychosis plus non-specific symptoms and recent decline in functioning, 2. recent onset of attenuated psychotic symptoms with decline in functioning, and 3. brief, intermittent and limited psychotic symptoms. The other approach is based on Huber's Basic Symptoms, which focuses on a detailed way of describing subjective disturbances, and may be an earlier indicator of risk than the first approach.

What is the evidence for early detection of psychosis?

Moderate to high quality evidence finds the mean rate of transition to psychosis in those assessed as being at clinical high risk for psychosis is around 16% by 2 years and 29% by 3 years. In people assessed as being at clinical high risk of obsessive-compulsive disorder are at higher risk of psychosis than people assessed as being at clinical high risk of bipolar disorder, which in turn has higher risk of psychosis than people assessed as being at high risk of depression. However, the rate of transition to psychosis are only one third the rate of transition to non-psychotic disorders in people at assessed as being at clinical high risk for non-psychotic disorders. In children and adolescents assessed as being at clinical high risk of psychosis, transition rates were between 17% and 20% by 1 year follow-up and between 7% and 21% by 2 year follow-up. 36% of children and adolescents recovered from their clinical high risk status by 6-year follow-up, and 40% continued to meet clinical high risk criteria without transition to psychosis.

Studies with older samples reported higher transition rates than studies with younger samples, and more recent publications reported lower transition rates than older publications. Studies using the basic symptoms approach reported higher transition rates than studies using the ultra-high risk approach. Studies of people receiving psychosocial treatments (e.g. cognitive behavioural therapy) reported lower transition rates than studies of people receiving standard care (e.g. case management). Studies of people on antipsychotics also reported lower transition rates than studies of people not on antipsychotics.

Moderate to high quality evidence suggests instruments based on ultra-high risk criteria have good sensitivity and moderate specificity. Moderate to low quality evidence also suggests the BSABS scale, based on basic symptoms approach, has good sensitivity and moderate specificity. This indicates validated tools are generally good at correctly identifying individuals who do develop psychosis, but not as good at identifying individuals who do not develop psychosis.

Moderate quality evidence suggests the model with the best predictive value (86%) for transition to psychosis was a clinical model including odd beliefs, marked impairment in role functioning, blunted affect, auditory hallucinations, and anhedonia/asociality. A biological model using grey matter volume, and a neurocognitive model using IQ, verbal memory, executive functioning, attention, processing speed, and speech perception, both had positive predictive values of ~83%. An environmental model with a positive predictive value of 63% involved urbanicity, social-sexual aspects, and social-personal adjustment. The best combination model had a positive predictive value of 82% and involved disorganised communication, suspiciousness, verbal memory deficit, and decline in social functioning.

For more information see the technical table

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NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.

Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.

Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.

While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.

HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at **neura.edu.au/donate/schizophrenia**.

NeuRA (Neuroscience Research Australia) Foundation
T 1300 888 019 **F** +61 2 9399 1082
ABN 57 008 429 961

Margarete Ainsworth Building
Barker Street, Randwick NSW 2031
PO Box 1165 Randwick Sydney NSW 2031 Australia

neura.edu.au