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Updates in Schizophrenia: Research, Remission, and Recovery
Symptoms of Schizophrenia

Positive
- Unusual thought content (delusions)\(^1,3\)
- Hallucinations\(^1,3\)
- Conceptual disorganization\(^1,3\)

Negative
- Affective flattening\(^1,2\)
- Apathy\(^3\)
- Anhedonia\(^3\)
- Avolition\(^1,2\)

Cognitive
- Impaired attention\(^3,4\)
- Impaired working memory\(^3,4\)
- Impaired executive functioning\(^3,4\)

References

• Symptoms of schizophrenia may be:
  • Positive (eg, unusual thought content, hallucinations, conceptual disorganization)
  • Negative (eg, affective flattening, apathy, anhedonia, avolition)
  • Cognitive (eg, impaired attention, working memory, executive functioning)
Note: Not all patients experience this disease course.

- Schizophrenia is characterized by a sequential trajectory that usually involves a premorbid phase (with subtle and nonspecific cognitive, motor, and/or social dysfunction), a prodromal phase (characterized by attenuated positive symptoms or basic symptoms and declining function), the first psychotic episode (which heralds the formal onset of schizophrenia), the first decade (which is often marked with reported psychotic episodes), and a stable phase (when psychotic symptoms are less prominent and negative and cognitive symptoms increasingly predominant).
- Some degree of recovery of function typically occurs after each episode of illness. However, it is important to note that, in some patients, there may be an accumulation of permanent disability after each successive episode.
- Goals of treatment are dependent of the phase of the illness (ie, psychotic/acute or stable/maintenance).

References
3. Kane JM. Maintenance strategies in schizophrenia. CNS Spectr. 2010;15(4 Suppl
Goals of Treatment

Acute phase

- Prevent harm, control disturbed behavior
- Reduce severity of psychosis/associated symptoms
- Address factors that led to the acute episode
- Effect rapid return to the best level of functioning
- Develop alliance with the patient and family
- Formulate short- and long-term treatment plans
- Connect patient with appropriate community aftercare

Maintenance phase

- Consolidate gains of acute therapy
- Prevent recurrence of illness, maintain response
- Maintain medication adherence
- Maintenance options include oral or injectable antipsychotics

References

### Remission and Recovery as an Outcome

- **Remission**¹
  - Symptoms rated as absent, minimal, or mild on PANSS
  - At least 6 months

- **Recovery**
  - A lack of clarity continues to exist regarding how recovery is to be defined; differing and sometimes contradictory opinions exist²
  - May be best to define recovery in terms of specific domains³
  - Increasingly regarded as an achievable outcome⁴
  - Estimated recovery rates: 4% to 27% over 1–2 years⁴

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**PANSS**: Positive and Negative Symptom Scale.


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- Proposed criteria for remission require that patients have symptoms of no greater than “mild” severity on the Positive and Negative Symptom Scale (PANSS), for all 8 symptom items, for at least 6 months.
- Recovery is not consistently defined but may be best defined in terms of specific domains of symptom improvement and functioning.
  - Reported recovery rates have varied from 4% to 27% over follow-up periods of 1 to 2 years.

### References


Recovery usually includes both symptom remission and independent psychosocial functioning. It is common opinion that the patient does not need to be living on their own to meet the latter.

Recovery is not the same as a cure.

There are several operational definitions of recovery in schizophrenia, with all including both symptom remission and improved psychosocial functioning.

Reference
Note: Not all patients with schizophrenia display these structure and function features.

Brain imaging technologies are making it possible to identify structural and functional abnormalities within the brains of individuals with schizophrenia.

References/Image Sources


4. DTI image [bottom right]: Ellison-Wright I and Bullmore E. Meta-analysis of diffusion tensor imaging studies in schizophrenia. *Schizophr Res*. 2009;108:3-10.
Looking Ahead: Future Trends and Developments

- Recognition that dozens or hundreds of different lesions and genetic mutations may contribute to clinical syndromes
- Emphasis on prevention: early detection and intervention
- Reducing or reversing cognitive deficits is now recognized as a key goal for treatment
- Growing number of targets for pharmacologic therapy
- New pharmacologic, nonpharmacologic treatments
- Moving care delivery from fragmentation to integration
- Eliminating stigma

References

Potential advances in schizophrenia care include greater emphasis on prevention and early diagnosis, reducing or reversing cognitive impairment, moving toward a more integrated model of care delivery, and eliminating stigma.

The recognition that there may hundreds of different brain lesions and genetic mutations that potentially contribute to schizophrenia may lead to new ideas about diagnosis and treatment.
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