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Old Age Module

Older People with Psychosis

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Expert Led Session

Older People with Psychosis

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Epidemiology of Psychosis in Elderly

- 20% of patients with schizophrenia (SZ) have their first onset at or after the age of 40, i.e. late-onset psychosis (LOP) (Maglione, Thomas, & Jeste, 2014)

- 0.1-0.5% prevalence of schizophrenia in >65 (Castle, 1993 and Copeland 1998)

- Estimated incidence of schizophrenia after the age of 65 years is 7.5 per 100,000 person-years (Stafford, 2018)

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Increased risk of psychosis in elderly

- Age-related changes in fronto-temporal cortices
- Neuro-chemical changes with ageing
- Sensory deficits
- Cognitive decline - significantly greater risk of developing dementia [relative risk (RR) 2.29; 95% confidence (Palmer, 2001)
- interval (CI) 1.35–3.88]
- Social isolation
- Polypharmacy

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Consequences of psychotic symptoms

- Disruptive and aggressive behaviour
- Neglect and abuse
- Carer distress
- Institutionalisation
- Financial burden

(Schneider et al, 1997 ; Stern, 1997)

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Psychosis in the elderly

Organic:

- Delirium
- Dementias
- Approx 60% of psychosis in elderly is *secondary* to other disorders (Holroyd S, 1999 and Manepalli, 2007)

Functional:

- Schizophrenia
- Affective Disorder
- Delusional Disorder

Schizophrenia – historical perspective

- Kraepelin (1894)
  - Dementia Praecox (disorder of emotion/volition)
  - Paraphrenia (insidious delusional system)

- Bleuler (1911) - Schizophrenia

- Bleuler (1943) - Late onset schizophrenia (onset after age 40)

- Roth and Morrisey (1952) - Late paraphrenia (onset after age of 55)

SCIZOPHRENIA IN THE ELDERLY

International Consensus Classification

- Chronic Schizophrenia (graduates)
- Late Onset Schizophrenia (onset after age 40)
- Very Late onset Schizophrenia (onset after age 60)

(Howard et al, 2000)

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Schizophrenia in the elderly

- Overall community prevalence – 0.1- 0.5%
- **Chronic schizophrenia** – 85% of the total
- **Late onset schizophrenia** – 23.5% develop the illness after age of 40
- **Very late onset** – 4% develop the illness after age 60

(Howard et al, 2000 ; Harris & Jeste, 1998)

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Early & Late-Onset Schizophrenia

Similarities:

- **Genetic** risk
- Presence and severity of **positive symptoms**
- Early psycho-social maladjustments
- **Subtle brain abnormalities**

Differences:

- **Fewer negative symptoms**
- Better **neuropsychological performance**
- Better **response to antipsychotics**

(Howard et al, 2004 ; Palmer et al, 2001)

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Very-late onset schizophrenia

Higher likelihood/risk:

- Female gender
- Associated sensory impairment
- Social isolation
- Tardive dyskinesia

Lesser likelihood/risk:

- Formal thought disorder
- Affective blunting
- Family history

(Lisa et al, 2002 ; Tune & Salzman, 2003)

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Comparison by age of onset

	Early onset	Late onset	Very late onset
Age of onset	<40	40-60	>60
Paranoid subtype	Common	Very common	Common
Negative symptoms	Marked	Present	Absent
Thought disorder	Present	Present	Absent
Organic brain pathology	Absent	Absent	Present
Family history	Present	Present	Absent
Childhood maladjustment	Present	Present	Absent
Cognitive impairment	Present	Present	Progressive
Information retention	Normal	Normal	Impaired?
Risk of tardive dyskinesia	Present	Present	Marked
Antipsychotic dose	High	Low	Lower

Palmer et al, 2001

Very late onset

Higher likelihood/risk:

Female gender

Associated **sensory impairment**

Social **isolation**

Tardive dyskinesia

Lesser likelihood/risk:

Formal thought disorder

Affective **blunting**

Family history

(Lisa et al, 2002 ; Tune & Salzman, 2003)

Biology of schizophrenia in elderly

Female Gender:

Higher brain volume loss in parietal lobes

Excess of dopamine receptors

Loss of anti-dopamine action of oestrogens?

(Jeste et al, 1997; Madhusoondanan et al, 2000)

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Biology of schizophrenia in elderly

Hypothesis 1:

Genetic susceptibility

Neuronal loss due to aging/vascular changes

Manifestation of symptoms

Hypothesis 2:

No genetic risk

Single event (vascular?) precipitating symptoms

(Karim& Burns, 2003; Pearlson G, 1995)

Clinical Features

Reduction of positive symptoms “burning out”

High levels of depression:

2 out of 5 clinically depressed

physical problems, poor support

Smoking rate twice than general population

Alcohol consumption lower in older people

(Bridge et al, 1978; Adler,1995)

Clinical features

Physical problems unrecognized in 50%

Psychiatrists miss half of the physical problems

Higher rates of IHD, Diabetes, respiratory problems, peptic ulcers.

(Koran, 1989; Koryni, 1979; Karim et al, 2006)

Cognitive Deficits

- Predictor of poor outcome

- Specific deficits:
  - Use of Language
  - Executive functioning
  - Memory

- Comparison with AD (Gabrovska et al, 2002)
  - More impaired on visuo-spatial task
  - Less impaired on verbal
  - Right hemisphere atrophy on MR

Cognitive Deficits

- Role of antipsychotics?
- Cerebrovascular disease?

- Treatment Implications:
  - Failure of social rehabilitation
  - Poor community living skills
  - Poor self care
  - Higher numbers in nursing homes

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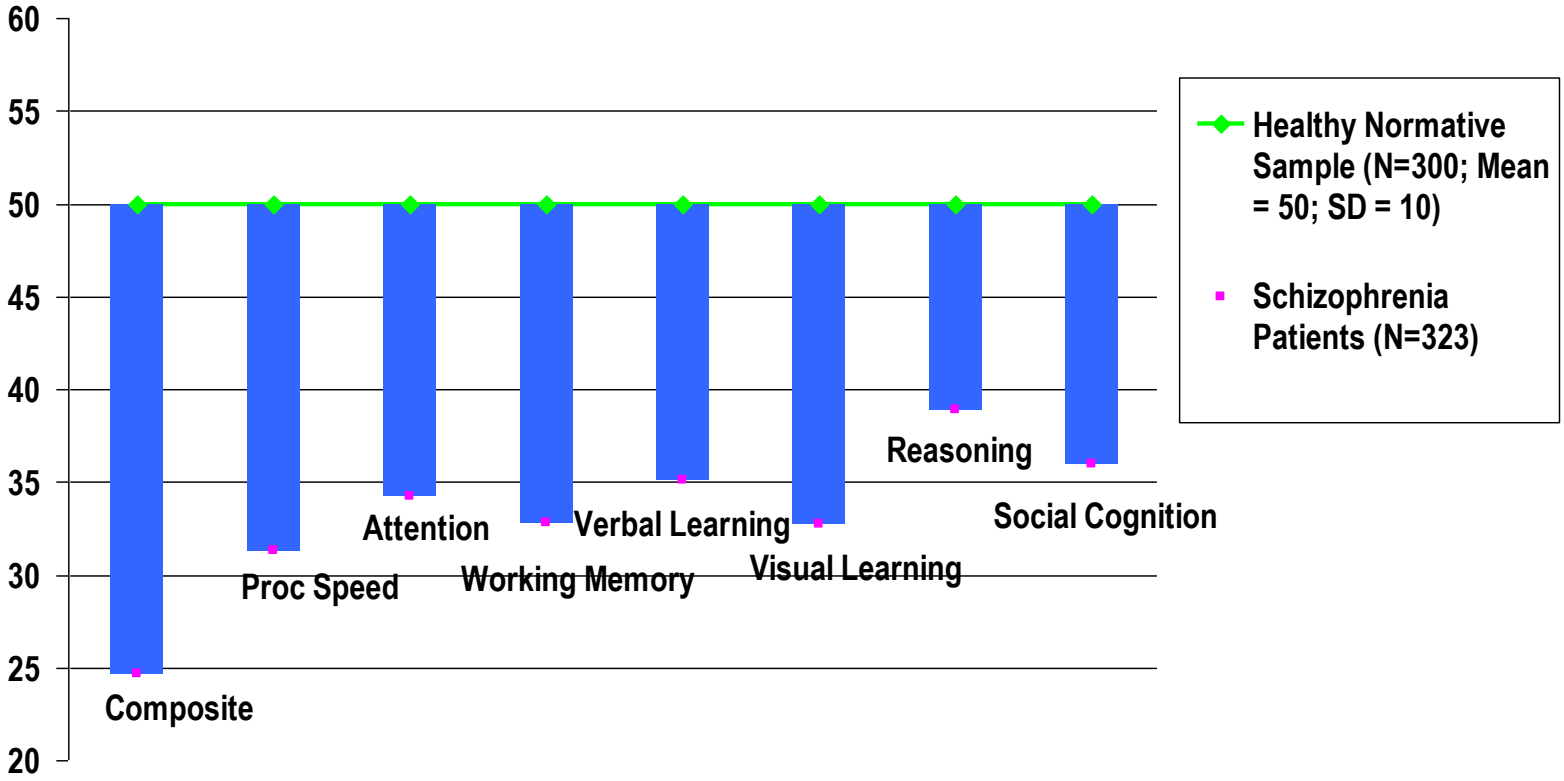
Cognitive Deficits

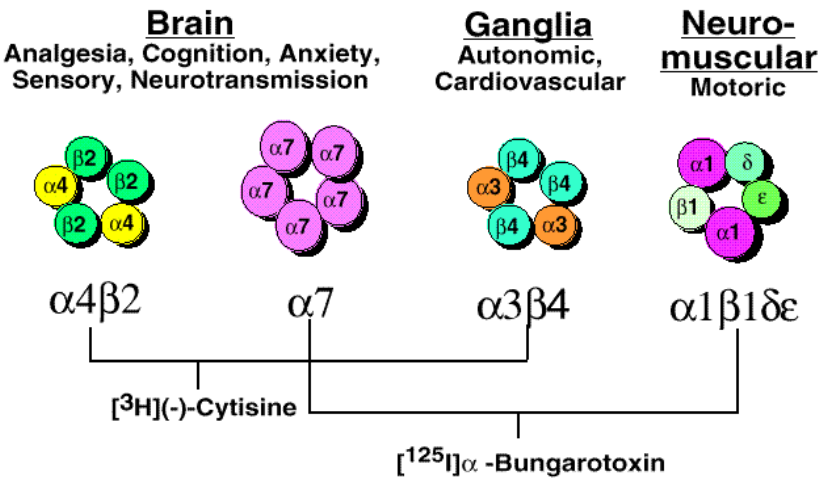


Neuronal Nicotinic Receptors – cholinergic hypothesis

Growing support for aberrant nicotinic, cholinergic signalling in psychosis

Cause of the cognitive deficits observed in schizophrenia

Low availability of the α7-nAChR in Hippocampus may be linked to recent onset of psychosis



Future - novel classes of α7-nAChR-modulating drugs acting in the hippocampus?

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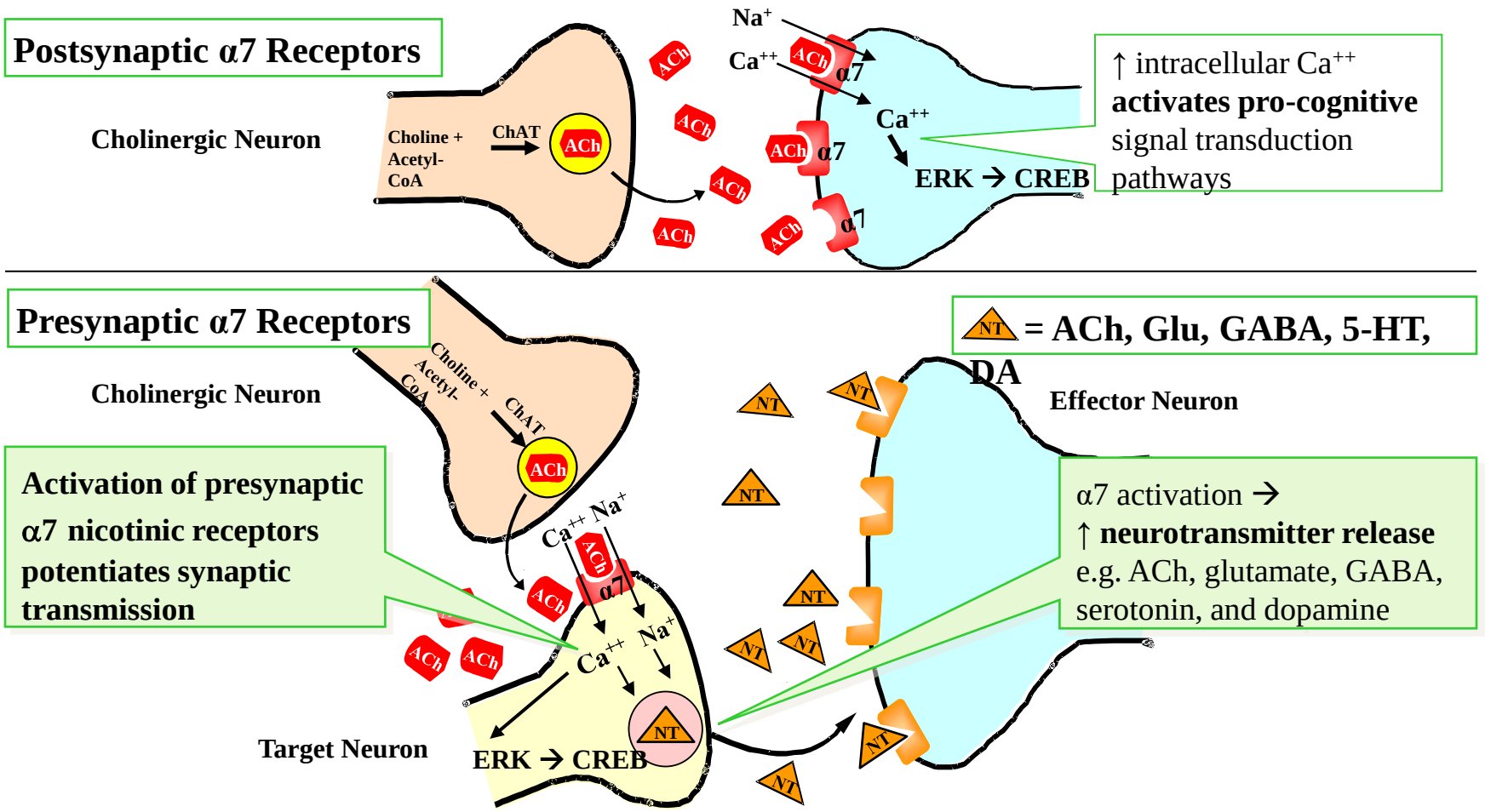
α7 Receptors: Pre- and Postsynaptic Mechanisms



Reviewed in: Stahl SM. J Clin Psychiatry. 2000;61(9):628-9. Bitner RS, Nikkel AL, et al., Brain Research. 2009;1265:65-74.

Social disabilities

- Improved coping skills
- Deficits in daily functioning in higher domains
- Predictors of abnormal functioning:
  - Cognitive impairment
  - Negative symptoms
  - Movement disorders

(Cohen,1993; Klaplow et al,1997; Cohen et al, 2000)

Management

Typical antipsychotics:

- Higher risk of TD
- 37% higher risk of death; risk is dose dependent
- Effective in treating positive symptoms
- Higher risk of disabling side effects

Atypical antipsychotics:

- Better side effect profile
- Better at treating negative symptoms

Essali A, Ali G: Antipsychotic drug treatment for elderly people with late-onset schizophrenia (Review); 2013 ;The Cochrane Collaboration

(Correll et al, 2004; Wang et al,2005; Nasrallah,2006)

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Management

Atypical Antipsychotics:

Recommended 1st line treatment

Risperidone and Olanzapine:

- Most extensively studied in elderly
- Both equally effective
- Fewer adverse events than typicals
- Risk of EPS higher with Risperidone
- Improvement with switching from typical

(Ritchie et al, 2006 & 2003; Barak et al, 2004)

- ATLAS trial: **low-dose amisulpride** is effective and well tolerated as a treatment for VLOSLP (Howard, R 2018)

Service Needs

85% reside in community

Service utilization comparable to AD (Shaw et al, 2000)

Concern about standard of services (McNulty et al,2003):

- Low spending
- Shortage of consultants
- Lack of policy

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MCQs

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MCQs

1. **A 76 year old lady is diagnosed with ‘late paraphrenia’. Which of the following delusions is the GP most likely to find compared to younger adults?**

   A. Hypochondriacal
   B. Delusions of misidentification
   C. Religious delusions
   D. Delusions of reference
   E. Persecutory delusions

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MCQs

1. **A 76 year old lady is diagnosed with ‘late paraphrenia’. Which of the following delusions is the GP most likely to find compared to younger adults?**

   A. Hypochondriacal

   B. Delusions of misidentification

   C. Religious delusions

   D. Delusions of reference

   E. Persecutory delusions

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MCQs

2. Very late onset schizophrenia is characterised by onset after:

A. 40 years

B. 60 years

C. 65 years

D. 70 years

E. 80 years

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MCQs

2. Very late onset schizophrenia is characterised by onset after:

A. 40 years

B. 60 years

C. 65 years

D. 70 years

E. 80 years

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3. Which antipsychotic is most likely to cause postural hypotension:

A. Aripiprazole

B. Risperidone

C. Haloperidol

D. Quetiapine

E. Sulpiride

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3. **Which antipsychotic is most likely to cause postural hypotension:**

   A. Aripiprazole

   B. Risperidone

   C. Haloperidol

   D. **Quetiapine**

   E. Sulpiride

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4. Which of the following drugs should not be used in renal failure?

A. Amisulpride

B. Aripiprazole

C. Chlorpromazine

D. Olanzapine

E. Quetiapine

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4. **Which of the following drugs should not be used in renal failure?**

   A. Amisulpride

   B. Aripiprazole

   C. Chlorpromazine

   D. Olanzapine

   E. Quetiapine

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5. ‘Sensitivity to antipsychotics’ is linked to which disorder?

A. Alzheimer’s Disease

B. Dementia with Lewy Bodies

C. Late onset Schizophrenia

D. Organic mood disorder

E. Huntington’s Disease

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MCQs

5. **‘Sensitivity to antipsychotics’ is linked to which disorder?**

   A. Alzheimer’s Disease

   B. **Dementia with Lewy Bodies**

   C. Late onset Schizophrenia

   D. Organic mood disorder

   E. Huntington’s Disease

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Any Questions?

Thank you

Please provide feedback/suggestions on this presentation to the module lead Anthony.Peter@lancashirecare.nhs.uk