



Neurological Disorders: Dementia For CHO/SN





LEARNING OBJECTIVES

At the end of the session, participants should be able to-

1. Define dementia
2. List the risk factors for dementia
3. Describe the stages and clinical features of dementia
4. Describe the role of CHO in the management of dementia
5. Identify red flags for referral to a specialist





DEFINITION

Dementia is a syndrome: usually of a chronic or progressive nature – in which there is deterioration in cognitive function (i.e. the ability to process thought) beyond what might be expected from normal ageing (WHO).

It affects-

- Memory
- Thinking
- Orientation
- Comprehension
- Calculation
- Learning capacity
- Language
- Judgement & social interaction

Consciousness is not affected.



INTRODUCTION

- Worldwide, around 50 million people have dementia, and there are nearly 10 million new cases every year.
- 53 Lakhs people are estimated to have dementia in India in 2020.
- The number of Persons With dementia (PWD) is expected to increase to 76 Lakhs by 2030
- Although dementia mainly affects older people, it is not a normal part of ageing.
- Alzheimer's disease is the most common form of dementia and may contribute to 60–70% of cases.
- Dementia is one of the major causes of disability and dependency among older people worldwide.
- Dementia has a physical, psychological, social, and economic impact, not only on people with dementia, but also on their carers, families and society at large. (who.int dementia 2020)



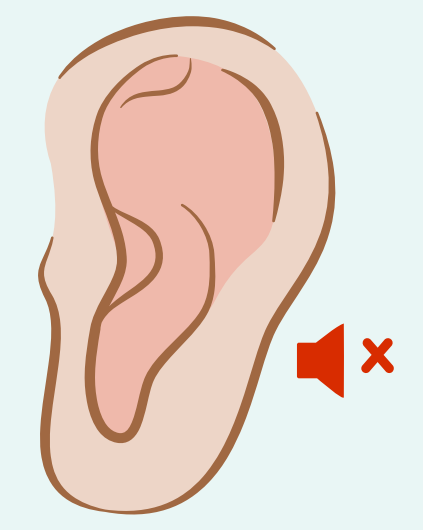
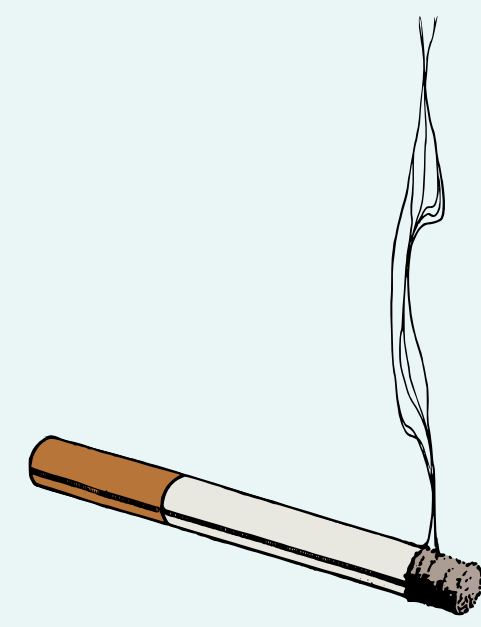
RISK FACTORS

Potentially Non-Modifiable Factors:

- Age
- Genetic factors

Modifiable Factors:

- Illiteracy
- Hearing Loss
- Diabetes
- Hypertension
- Obesity
- Smoking
- Depression
- Physical Inactivity
- Social Isolation
- Stroke





CLINICAL FEATURES



- Signs and symptoms depend on the stage and type of dementia
- Dementia may mimic depression & also may co-exist with depression.

Clinical Stage	Progression of Disease
Early stage/ Mild Dementia	The early stage of dementia is often overlooked, because the onset is gradual.
Middle stage/ Moderate Dementia	As dementia, progresses to the middle stage, the signs and symptoms become clearer and more restricting.
Late stage/ Severe Dementia	The late stage of dementia is one of near total dependence and inactivity. Memory disturbances are serious and the physical signs and symptoms become more obvious.



Early stage

- Forgetfulness
- Losing track of the time
- Becoming lost in familiar places
- Independent for basic activities of daily living (ADL)

Middle stage

- becoming forgetful of recent events and people's names
- becoming lost at home
- having increasing difficulty with communication
- **needing help with personal care(dependent on ADL**
- experiencing behaviour changes, including wandering and repeated questioning.





Late stage

- becoming unaware of the time and place
- having difficulty recognizing relatives and friends
- having an increasing need for assisted self-care
- having difficulty walking
- experiencing behaviour changes that may escalate including aggression (**severity of Behavioural and Psychological Symptoms of Dementia- (BPSD) increases**).



ASSESSMENT OF DEMENTIA AT SHC-HWC

Cognitive assessment is done to assess dementia since patients with dementia are characterized by cognitive impairment.

- Brief cognitive assessment using standard tools such as Hindi Mental Status Examination (MMSE).
- **HMSE is a modified tool derived from MMSE and can be used specially in the sociocultural context in the Indian scenario.**
- Everyday Abilities Scale for India (EASI) – specific tool to screen for impairment of functioning.



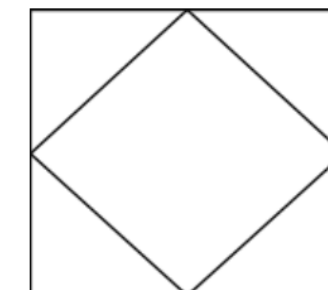


HINDI MENTAL STATUS EXAMINATION

- Developed considering the sociocultural context of Indian population from MMSE
- Total score is out of 31.



Hindi Mental Status Examination- HMSE		Correct	Wrong			
1	Is it morning or afternoon or evening?	1	0			
2	What day of the week is it today?	1	0			
3	What date is it today?	1	0			
4	Which month is it today?	1	0			
5	What season of the year is this?	1	0			
6	Under which post office does your village come?	1	0			
7	Which district does your village fall under?	1	0			
8	Which village are you from?	1	0			
9	Which block (if village has only blocks) OR Which numbered area is this?	1	0			
10	Which place is this?	1	0			
11	I went to Delhi and brought three things- Mango, Chair and Coin. Can you tell me what the three things I brought from Delhi are?	1	2	3		
12	Can you tell me the names of the days of the week starting from Sunday? Now can you tell me the names of the days Backwards?	1	2	3	4	5
15	What are the names of the three things, which I told you I have bought back from Delhi?	1	2	3		
17	Show him the wristwatch and say, what is this?	1	0			
18	Show him the pen and say-what is this?	1	0			
19	Now I am going to say something, listen carefully and repeat it exactly as I say after I finish Phrase: "NEITHER THIS NOR THAT"	1	0			
20	Now look at my face and do exactly what I do. (Close your eyes for 2 sec)	1	0			
21	First you take the paper in your right hand, then with your both hands, fold it into half once and then give the paper back to me	1	2	3		
23	Here is a drawing. You must copy this drawing exactly as shown in the space provided here.(Must draw 2 four sided figure =1;1 figure should be inside other =2; Orientation of the figures should be obviously appropriate =3)	1	2	3		
HMSE Total Score		/ 31				





EVERYDAY ABILITIES SCALE FOR INDIA



1. Does he/she ever forget that he/she has just eaten and ask for food again after he/she has just eaten?

2. Does he/she urinate in an appropriate place?

3. Do his/her clothes ever get dirty from urine or stools?

Tell me the following about his clothes:

4. Is his/her shirt buttoned properly?

5. Is his/her dhoti/petticoat tied properly?

6. Is he/she able to work as a member of a team i.e. in a group activity which requires different roles from people will he/she be able to participate?

7. Does he/she express his/her opinion on important family matters, e.g., marriage?

8. If he/she is assigned or himself/herself decides to undertake an important task can he/she follow it through to completion?

9. Is he/she able to remember important festivals such as Holi, Diwali?

10. If he/she is asked to deliver a message does he/she remember to do so?

11. Does he/she discuss local/regional events such as marriages, disasters, politics appropriately?

12. Does he/she ever lose his/her way in the village?

13. Are they able to handle calculations and money?

14. Is there a change in behaviour or personality?

15. Is there new onset depression?

All questions are in Yes/No format. No is given 1-point scores >4 are to be evaluated further.





MANAGEMENT OF DEMENTIA AT SHC-HWC

There is no curative therapy for dementia, and hence, the focus is on treatment of symptoms and associated comorbidities, including psychiatric concerns.

Management at the SHC-HWC includes:

- Continuation of Medications (AchE-I) as prescribed by the MO.
- Regular follow ups and monitoring
- Non-pharmacological intervention
- Referring to specialist (in care of red flags)





NON-PHARMACOLOGICAL INTERVENTION



- Environmental modification
- Memory training
- Adequate sensory cueing
- Simplification of tasks
- Dementia support groups
- Other therapies – music therapy, aroma therapy, art therapy, light exercises
- **Interventions for caregivers**
- **Disability benefits/ welfare measures including legal implications**





RED FLAGS IN DEMENTIA (WHEN TO REFER)

- Young onset
- Rapidly progressive cognitive dysfunction
- Worsening impairment in activities of daily living
- Headache and vomiting
- Fever
- Involuntary weight loss and loss of appetite
- Incontinence of bowel or bladder
- Self-injury or injury to a caregiver
- Recent history of head trauma
- Presence of focal neurological deficits such as hemiparalysis





GROUP ACTIVITY

A 70-years old male, a retired teacher, presented with complaints of forgetfulness in day-to-day activities. He had noticed these symptoms around three years ago, and the complaints had been progressive since. This had led to problems such as forgetting where he placed his spectacles or car keys, and also forgetting to lock the house after him. Of late he has also not been able to manage his finances. He felt bothered by these issues and his wife reported that he seemed worried and withdrawn. His wife also reported that he sometimes got confused about the routes while driving and couldn't find his way home, a problem that he never had before. On examination, he was alert and oriented to time, place and person. His general knowledge was intact. He had no other significant past medical or family history. He had no history of substance use or the use of any regular medications.



GROUP ACTIVITY

- **GROUP 1:** What is the possible diagnosis? What are the clinical features that made you think of this diagnosis?
- **GROUP 2:** Assess the case using Everyday Abilities Scale for India.
- **GROUP 3:** What is the role of CHO in management of this case at the SHC-HWC?

Discussion – 6 minutes

Presentation – 3 minutes per group



EVALUATION

State whether the following are **true or false**

1. Complete dependence and near total inactivity is seen in early stage of dementia.
2. A patient of dementia with worsening impairment in activities of daily living should be referred to a specialist.
3. Dementia is characterized by loss of consciousness.
4. CHO can initiate pharmacological treatment in patients with dementia.
5. Setting reminders and alarms on the phone is an example of sensory cueing in patients with dementia.



ANSWERS

State whether the following are true or false

1. Complete dependence and near total inactivity is seen in early stage of dementia. **FALSE**
2. A patient of dementia with worsening impairment in activities of daily living should be referred to a specialist. **TRUE**
3. Dementia is characterized by loss of consciousness. **FALSE**
4. CHO can initiate pharmacological treatment in patients with dementia. **FALSE**
5. Setting reminders and alarms on the phone is an example of sensory cueing in patients with dementia. **FALSE**



EVALUATION

Fill in the blanks

1. While filling the EASI, a cut off score of ____ warrants further evaluation.
2. The clinical stage of dementia which is often overlooked is ____.
3. MMSE/HMSE is used to assess ____.
4. Dementia might sometimes mimic ____.





ANSWERS

Fill in the blanks

1. While filling the EASI, a cut off score of >4 warrants further evaluation.
2. The clinical stage of dementia which is often overlooked is early stage/ mild dementia.
3. MMSE/HMSE is used to assess cognitive function.
4. Dementia might sometimes mimic depression.



FURTHER READINGS AND RESOURCES

- <https://www.dementiauk.org/>
- <https://dementiacarenotes.in/>
- <https://www.who.int/news-room/fact-sheets/detail/dementia>
- Shaji KS, Sivakumar PT, Rao GP, Paul N. Clinical practice guidelines for management of dementia. Indian journal of psychiatry. 2018 Feb;60(Suppl 3):S312.
- <https://www.mhinnovation.net/sites/default/files/downloads/innovation/reports/Dementia-India-Report.pdf>
- <https://www.alzint.org/resource/world-alzheimer-report-2020/>
- VAYOMANASA SANJEEVANI (outreach initiative)
<https://www.youtube.com/channel/UCndmTxMQq9AOjj2WRBCzmOQ>





सत्यमेव जयते



Thank You

