

# COMPETENCE & MENTAL STATUS

How the two are related medically...

# Competency

- Competency is a **legal concept**; it refers to having the ‘mental capacity to decide in accordance with one’s goals, concerns and values’.
- **Decision-making capacity** is a mostly synonymous term.
- Patients are considered competent *legally* unless a court has found otherwise.
- Competence is absolute but specific: Either a person is or is not competent to make a *particular decision*.
- Competency, however, is fluid and can change over time.
- Incompetence may be *isolated* or global (from which follows the idea of ‘limited’ vs. general guardianship)

# Decision-making Ability

- Depends on the functional elements necessary for competent decision-making
- These elements are **dimensional** – that is, people will have varying degrees of these abilities (and these abilities may vary over time within an individual)
- The four most frequently discussed elements include the ability to:
  - Understand (*what is being discussed*)
  - Appreciate (*the significance of the information*)
  - Reason (*apply it to the current context*)
  - Express a choice (*indicate a preference*)

# Informed Consent

## (for medical treatment)

- The legal rationale for informed consent is based on a person's right to self-determination
- For informed 'consent' to be achieved:
  - The person must be *clinically* competent to make decisions regarding personal health care (i.e. have decision-making capacity)
  - The person must receive the *appropriate information* (to allow a reasoned and rational choice to be made)
  - The decision must be *voluntary* (i.e. not coerced) and can be withdrawn at any time
- Informed consent applies to both 'yes' and 'no' decisions about care
- Remember that competent individuals are 'allowed' to make foolish choices

# What are the elements of competence?

- There are 4 ‘accepted’ standard elements:
  - Communication of choice
  - Understanding of information
  - Appreciation of one’s situation & risks/benefits of choices made
  - Rational decision-making
- Courts prefer the first two, psychiatry the latter

# How is competency determined?

- Competence is not a pure, scientifically determinable state because it is colored by personal value judgments and social policy
- Competency is *contextual*. Only a minimal competency is necessary (maximal capacity is irrelevant) for the task at hand; some things require a higher degree of competence than others
- Competency is ‘fluid’ and thus must be assessed ‘at the moment’

# What conditions might impair competence?

- Medical/Neurological disorders that impair cognition (i.e. thinking abilities) such as dementia, delirium, and intoxications - usually by impairing memory, concentration and/or judgment.
- Psychiatric disorders that impair thinking and/or judgment. The difference here is the inclusion of mood/emotional disorders and psychosis that may profoundly affect judgment even with clear cognition.

# Ways In Which Competency Might Be Impaired

- *Cognitive impairment* – can't think straight, understand or remember what is being discussed (causes include dementia, delirium, epilepsy(post-ictal states), brain injury, mental retardation)
- *Emotional disorders* – reasoning is influenced by pathological emotionality (examples: depression, mania, severe anxiety, PTSD)
- *Thought impairment* – idiosyncratic or delusional thinking (e.g. schizophrenia, paranoid disorders)
- *Dissociative disorders* –patient 'not all there' to make decisions (e.g. fugue states, MPD)



# Cognitive Disorders

- Impairments might be seen in memory (esp. short-term memory), orientation, concentration, abstract reasoning, etc.
- Mini-mental state exam (MMSE) is an easy and useful screening tool (18/30 – 24/30 is a borderline score regarding competence).
- *Complex reasoning may be impaired before significant impairments are seen on MMSE.*

# Types Of Cognitive Disorders

- DEMENTIA

- Primary impairment is in Short-Term Memory- ‘learning’. Can’t remember appointments, medication changes, new people and faces, instructions, etc.
- Social skills (*including casual conversation*) are often preserved early as is comprehension and long-term memory (i.e. memories of past events).
- Also see problems with apraxia (motor memory), aphasia (speech and language memory), agnosia (recognition), visuospatial skills
- *Abstract reasoning/executive function impairments are almost always present early in the course*
- **Usually progressive and irreversible**

# Executive Function

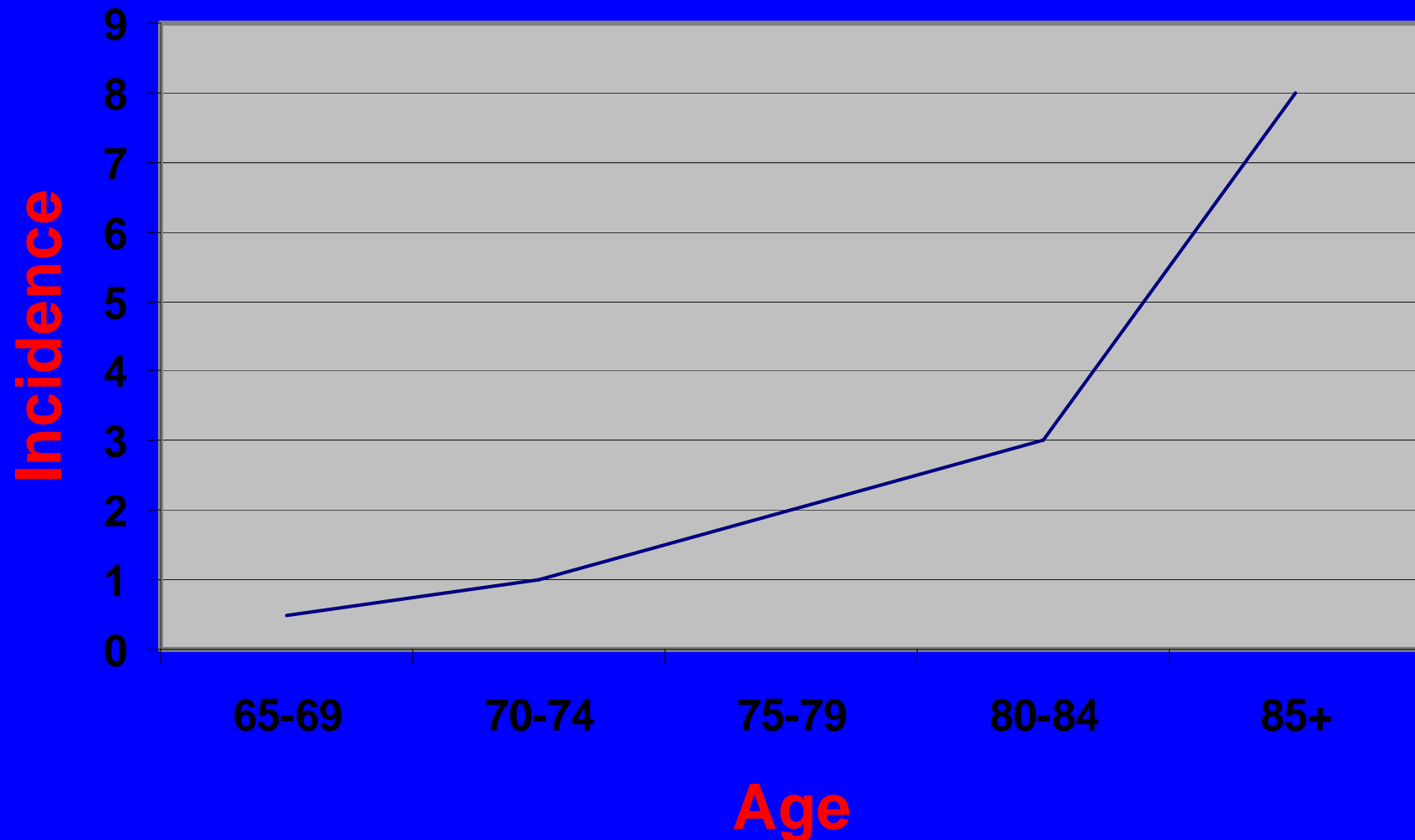
- This is the ‘highest’ level of cognitive function (and likely separates humans from other primates)
- Represents the ability to plan ahead, anticipate consequences, abstract meanings, and arrive at appropriate judgments about things
- Requires ‘intact’ memory systems
- Last to develop; first to go (frontal lobe systems)
- Not everyone is blessed with the same level of competence in these areas

# Epidemiology: Prevalence of dementia increases with age

Age	Prevalence*	Age	Incidence
>65	5-10%	65-74	0.5-1%
>75	10-20%	75-84	2-4%
>85	25-50%	85+	6-8%
>95	40-70%	May level off or decline after age 100	

\*Lower numbers represent moderate to severe dementia

# Incidence Of Alzheimer's Disease by Age



## *Associated Findings in Dementia*

- Personality change with impaired social judgment and insight
- Psychosis (usually related to memory failure)
- Depression and/or apathy/withdrawal
- Agitation/Aggression
- Delirium (sudden worsening)

## Some Causes of Dementia

- **Common causes:** Alzheimer's disease, vascular dementia (usually in people with heart disease, hypertension, and/or diabetes), alcohol-induced, Lewy Body disease
- **Less common causes:** Drugs, AIDS, Parkinson's Disease, other neurological disorders, metabolic, Pick's disease, MAD-COW disease, etc.
- Some causes are reversible – low thyroid, B12 deficiency, normal-pressure hydrocephalus
- Some are relentlessly progressive – Alzheimer's disease, Lewy Body dementia
- Some are less predictable but usually progressive – vascular and alcohol dementias for example.

# Types of Cognitive Disorders

- DELIRIUM

- Global physiological disturbance of brain function (brain is not getting what it needs to function well)
- *Impaired consciousness*; attention, orientation plus higher cognitive functions all impaired
- Symptoms wax & wane
- Often life-threatening
- Very common in dementia and post-surgical patients, ICU patients, etc. DT's is a type of delirium. Many medical causes (Wernicke's, drug intoxications, eg.)
- **Usually reversible if recognized early and aggressively treated**  
**\*But can't always tell what new baseline will be\***



# Types of Cognitive Disorders

- Amnesia – isolated short-term memory impairment
  - Medical causes include transient global amnesia, post-ictal or extended inter-ictal states, head trauma, Etoh-induced (Korsakoff's, 'blackouts')
  - Psychiatric causes include fugue states, dissociative identity disorder (i.e. MPD)
  - Many of these causes are 'temporary'

# Traumatic Brain Injury (TBI)

- Caused by sudden trauma to the brain, can be mild to severe. (AKA concussion)
  - Usually have some LOC. Confusion, trouble with memory, concentration, attention and thinking are common
  - Most recover but time frame varies
- More serious head trauma can lead to stupor, coma or vegetative states

# CASE EXAMPLE

- 84 y/o male with dementia brought by family to have new glasses made. Patient keeps misplacing his old glasses and they have been lost again. Patient is pleasant, but disoriented and can't remember what is said to him for long but is worried about "his money". He says he doesn't have any money and so does not want new glasses.

# EMOTIONAL DISORDERS

- DEPRESSION (*the illness*)- profound mood disturbance leading to dysfunctional behavior. Associated with sleep and appetite changes, suicidal ideation, & loss of pleasure (anhedonia). Cognitive impairment (pseudodementia) and delusions (psychotic depression) are common in severe cases. Subtypes: **Dysthymia** (less severe), **Major Depression**, **Bipolar disorder**, **Adjustment disorder**.
- Rule out: normal grief (bereavement), unhappiness.

# Depression (cont.)

- Demographics:
  - Age 65+: 1-2% prevalence of depression, 27% with depressive symptoms.
  - Lifetime prevalence: 10-15%.
  - Point-prevalence in U.S. – 8-10%
  - Very common in situations where autonomy has been reduced (i.e. Nursing homes)
- Insight is poor – patient often feels hopeless about treatment and may misjudge circumstances. Judgment may be severely affected if delusional. Decision-making is often unrealistic due to pessimism, helplessness and hopelessness.

# Depression (cont.)

- *Depression is perhaps the most treatable common, serious, functionally impairing condition in the world.*
- Competence can be severely impaired but can often be completely restored with treatment.
- Patient's pessimism often leads them to forego treatment however.
- Specific treatments are available. Many patients can no more 'suck it up' and get better than they can for heart disease or diabetes...
- *Sometimes 'guardianship' is needed to ensure treatment*

# EMOTIONAL DISORDERS (cont.)

- MANIA:
  - Usually part of **Bipolar Disorder** (aka manic-depressive illness) but can be caused by other organic factors (steroids, stimulant drug use, hyperthyroidism, etc.).
  - Elevated mood, decreased sleep, rapid pressured speech, flight-of-ideas, and grandiosity are common. Psychotic symptoms (impaired reality testing) are often present.
  - *Judgment and insight are often severely impaired.* Patients engage in regrettable and/or unsafe behaviors (promiscuous sex, spending money, threatening bosses, etc.).
  - Responds nicely to treatment *if patient will comply.*

## CASE EXAMPLE

- A *depressed* elderly female has a few badly rotting teeth that are probably abscessed. Her doctors are concerned about systemic infection without treatment. The patient does not appear demented. (MMSE 29/30). She seems to understand her predicament but is convinced she will die soon anyway and welcomes it “because life isn’t worth living anymore”. She sees no point in any dental procedure. The daughter thinks mom should “make her own decisions”.



# THOUGHT IMPAIRMENT

- This refers to *non-cognitive* disturbances in thought.
- **SCHIZOPHRENIA** is the classic thought disorder with impaired thought production, loosening of associations, distorted reasoning (paranoia for example), perceptual disturbances (such as hallucinations), poor motivation, poor social skills, and impaired reality testing (i.e. delusions).
- Related disorders include **DELUSIONAL DISORDER, SCHIZOAFFECTIVE DISORDER & PSYCHOTIC DISORDER NOS**. Organic disorders such as hallucinogen abuse, hyperthyroidism and some medicines can cause similar symptoms.

# THOUGHT IMPAIRMENT

- While psychotic symptoms are common in dementia and delirium these are primarily cognitive disorders.
- INSIGHT is often severely lacking in these disorders. Delusions about physical symptoms and command hallucinations are not uncommon.
- People with *delusional disorder* are often quite intact in terms of their thought process and cognitive function but judgment can be very poor.

# Thought Disorders

- Treatment can restore patients to competence but treatments are not as predictably effective as they are for mood disorders
- Also the concept of ‘delusional thinking’ is a tough one and can overlap with the concept of ‘free will’ (at what point do people’s thoughts no longer represent free will??)

# CASE EXAMPLE

- An attractive 39 year old woman comes to her new dentist's office requesting corrective dental surgery. She says that her last dentist horribly disfigured her mouth and distorted her smile. She is very distressed and frequently tearful and seems desperate to get help. Upon examination her teeth and smile seem well within the normal range of people with her level of attractiveness. What should be done?