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TBI & NEUROPSYCHIATRY: WHAT DO I DO WITH MY PATIENT WHO IS DEPRESSED AND HAD A TBI.

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OBJECTIVES

1. Identify 2 pathways that result in TBI patients being treated in primary care.

2. Describe common psychiatric co-morbidities that occurs with/as a result of TBI.

3. Recognize the current treatments for psychiatric co-morbidities in TBI patients.

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CASE 1

- CC: “Depressed”
- HPI:
  - 38 y/o male who presents with symptoms of depression - irritability, poor appetite, poor concentration, feeling slowed down, fatigue, and passive SI for the last 4 weeks.

CASE 1

- In passing, the patient reports that he was hospitalized for a head injury in 2012 and may have had mood symptoms since then.

- Now WHAT???

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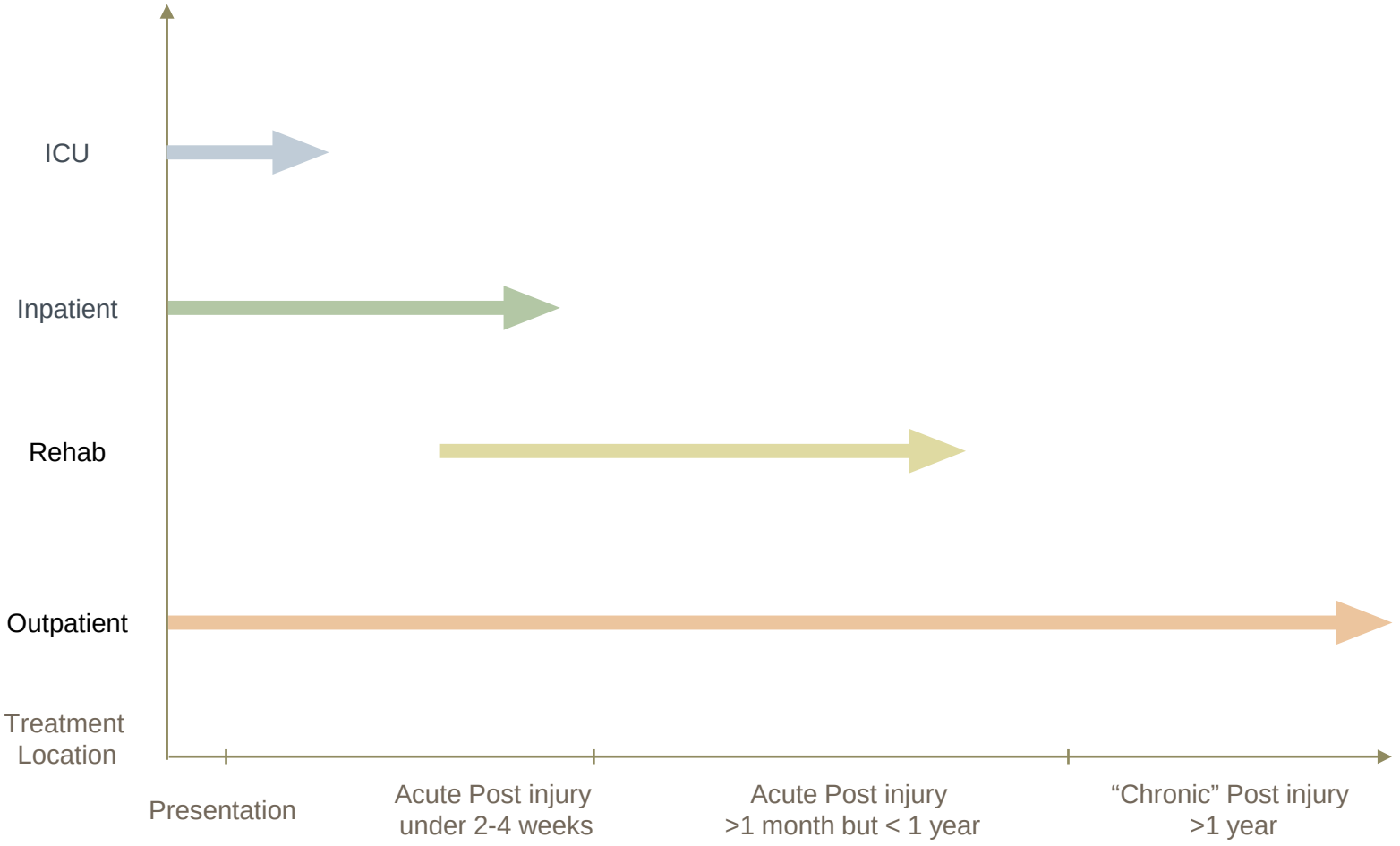
TBI

- Not a new problem nor are the psychiatric comorbidities
  - 1800s - Phineas Gage[1]
- Common
  - 1.4 Million sustain a TBI annually according to the CDC[2]
- Effects long term medical outcomes
  - Corrigan and colleagues studied 4064 between 2001-2007 found 57% were moderately or severely disabled overall, with 39% having deteriorated from a global outcome attained 1 or 2 years post-injury[3]

TBI Treatment Timeline



TBI IN PRIMARY CARE

- 3 key enter points
  - Initial presentation of mild/non-hospitalized TBI
  - Unable to complete rehab
  - Completed all phases and are now an established outpatient

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CHALLENGES TO TBI ASSESSMENT

- Patient reported history
  - Recall bias
- Limited prior records
- Limited collateral about an incident
- Unclear symptom timeline

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APPROACHING A TBI HISTORY

- Review or request records
- Review or request imaging if appropriate
- Review premorbid history carefully
- Collect a TBI history
  - Prompt patient to discuss only what they personally recall
  - Screening tools
    - Ohio state TBI screen
    - HELPS
    - DVBIC TBI Screening tool

CASE 1 CONTINUED

- Prior records have been request from Chief Andrew Issac Hospital (Fairbanks, AK)
- Premorbid hx: patient only had issues with occasional marijuana use. No other pre-psych history
- Ohio State screen - 1 TBI, lost conscienceless and was admitted to hospital for a day or two, but no rehab. No other TBI incidents

WHAT ABOUT NEUROIMAGING?

- None on record
  - Recent injury
  - If there is a history of a shunt or penetrating trauma
  - If there is something that is present on neurologic exam
  - Severe memory issues
  - Symptoms that are suggestive of ongoing seizures

MY PATIENT MAY HAVE A TBI: WHAT SHOULD I DO NEXT?

TABLE 1 Screening Recommendations for Common TBI-Related Problems

Long-Term Problem	Screening Tool	Time of Initial Screen	Frequency of Screen	Threshold for Further Assessment
Cognitive Decline	Mini-Mental State Examination (MMSE)	1 year post-injury	Every 5 years or earlier if cognitive decline reported by patient or caregiver	1 standard deviation decline from MMSE baseline based on normative data (e.g. age, education)
Depression	PHQ-2 subtest of Patient Health Questionnaire (PHQ-4)	Initial visit	Every visit 1st 2 years post injury then annually. If previously met threshold, every visit beyond 2 years	PHQ-2 ≥ 1
Anxiety	GAD-2 subtest of Patient Health Questionnaire (PHQ-4)	Initial visit	Every visit 1st 2 years post injury then annually. If previously met threshold, every visit beyond 2 years	GAD ≥ 1
Headache	Ask if patient has headache. If yes, Headache Impact Test (HIT-6)	Initial visit	Every visit	HIT-6 > 60 or headache not improving
Irritability/ Aggression	Neuropsychiatric Inventory (NPI), irritability and aggression screener	Initial visit	Yearly or more frequently as needed	Referral to specialist if beyond the scope of the provider
Sleep Disorders	Modified Portable Polysomnography (PSG)	Earliest time possible	Guideline for use of PSG in Management of Formal Sleep Disorders	Result dependent

Flanagan (2015)Brain Injury

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PSYCHIATRIC COMORBIDTY[4]

- MDD: 25- 50%
- Mania: 1-10%
- Psychosis: 3-8%
- Anxiety: 10-70%
- Cognitive impairment: 25 - 70%
- Insomnia: 30 - 70%
- Apathy: 10%
- Aggression: 30%

PSYCHIATRIC COMORBIDITY

- Over half of Traumatic Brain Injury (TBI) patients will meet criteria for Major depressive disorder (MDD) within a year after hospitalization[5]

- Untreated MDD in patient with TBI is associated with worsen outcome[6]

CASE 1 CONT.

- Patient has had 3-4 MDD criteria meeting episodes since their TBI
- They are no longer able to hold a job
- They are living independently

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TREATMENT OF NEUROPSYCHIATRIC SYMPTOMS OF TBI

- Screen frequently
- Do not forget pain & sleep
- Monitor social functioning
- Engage with family/care takers
- Collaborate for realistic goals of care
- If considering pharmacotherapy, start slow.

PSYCHIATRIC DIAGNOSIS TREATMENT

- MDD
  - SSRI, TCA, CBT*
- Mania
  - Valproate, lithium
- Psychosis
  - 2nd generation antipsychotics
- Anxiety
  - SSRI, short acting benzos, CBT*

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PSYCHIATRIC DIAGNOSIS TREATMENT

- Cognitive Impairment
  - Psychostimulants, cholerestiase inhibitors
- Insomnia
  - Sleep hygiene*, trazodone, remeron, CBT*
- Apathy
  - Psychostimulants
- Agression
  - Beta-blockers, valproate, psychostimulants, SSRIs

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QUESTIONS???

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