



SNS COLLEGE OF NURSING SARAVANAMPATTI , COIMBATORE - 35

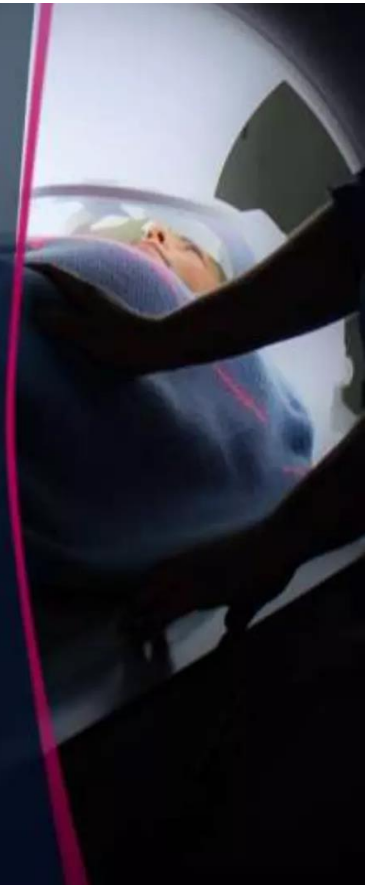
INVESTIGATIONS OF MENTALLY ILL PERSON



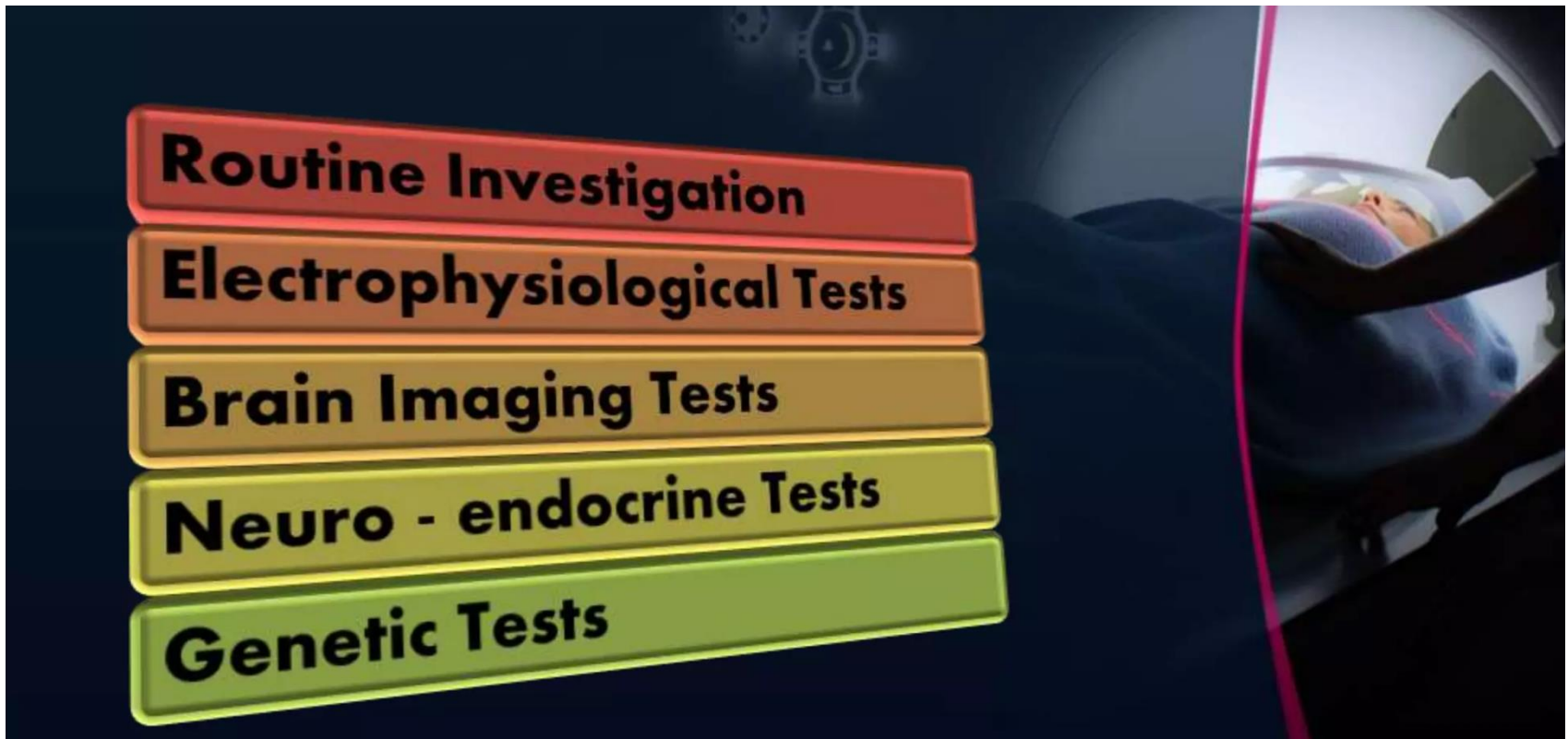
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INTRODUCTION

- ***Clinical Laboratory Investigation and Psychiatry*** is an invaluable tool that explores day-to-day psychiatric practices
- Investigation are useful to detect alteration in biologic function & to screen for medical disorders causing psychiatric symptoms.



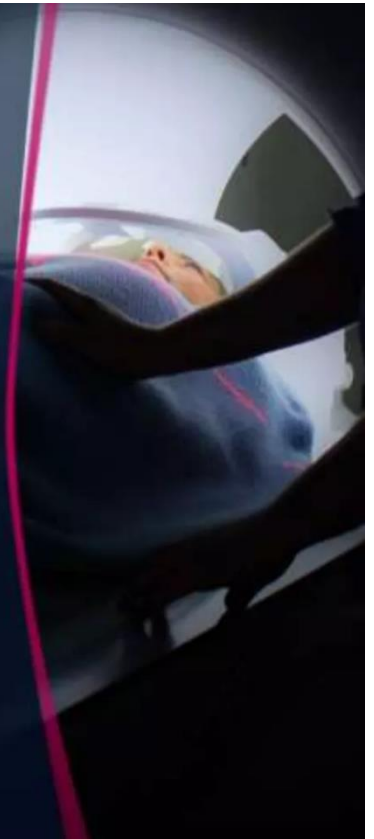
CLASSIFICATIONS



ROUTINE INVESTIGATION

- *A complete hemogram (total & differential blood count, hemoglobin, ESR) & urine analysis are basic routine tests.*

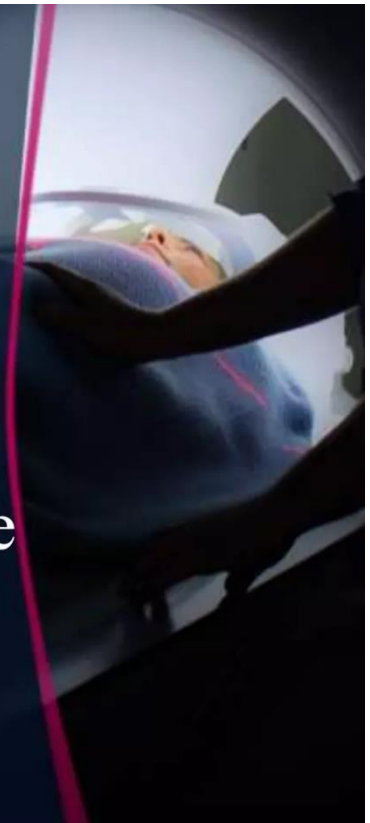
Leucopenia & agranulocytosis are associated with certain medications (clozapine). Treatment with lithium & neuroleptic malignant syndrome are often associated with leucocytosis.



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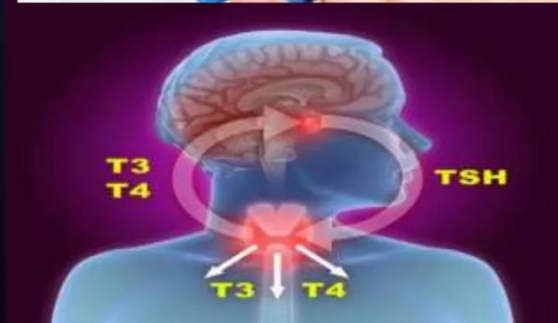
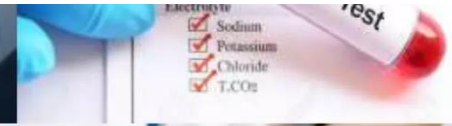


- **Renal function tests:**
Treatment with lithium.
- **Liver function tests:**
For all alcoholic patients
treatment with
carbamazepine, valproate
& benzodiazepines



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- **Serum electrolytes:** Dehydration, treatment with carbamazepine, antipsychotics, lithium•
- **Blood glucose:** Routine screen above 35 years age
- **Thyroid function test:** Depression, treatment with lithium & carbamazepine.



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- Electrocardiogram (ECG): Above 35 years of age, treatment with lithium, antidepressants, ECT, antipsychotics.

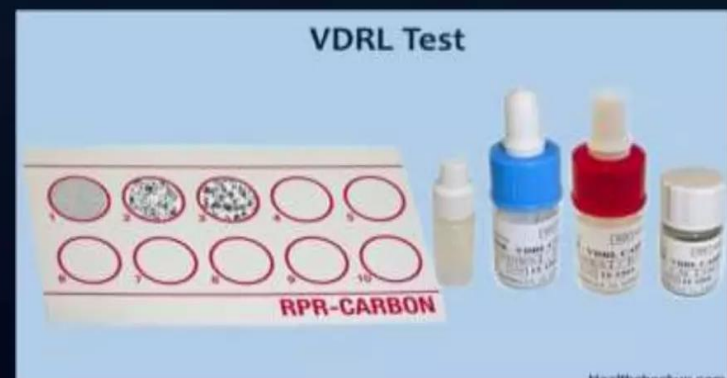


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□ HIV testing:

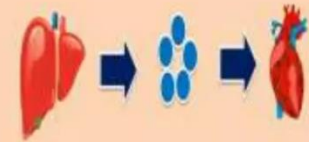
IV drug users,
suggestive sexual
history, AIDS,
dementia.

□ VDRL: Suggestive sexual history



- ✓ **Serum CPK:** Neuroleptic malignant syndrome (markedly increased levels)
- ✓ **Chest X-ray:** Before treatment with ECT
- ✓ **Drug level estimation:** Drug levels are indicated to test for therapeutic blood levels, for toxic blood levels & for testing drug compliance. Examples are lithium (0.6-1.6 mEq/L), carbamazepine (6-12mg/ml), valproate (50-100 mg/ml), haloperidol (8-18 mg/ml), imipramine (200-250mg/ml),

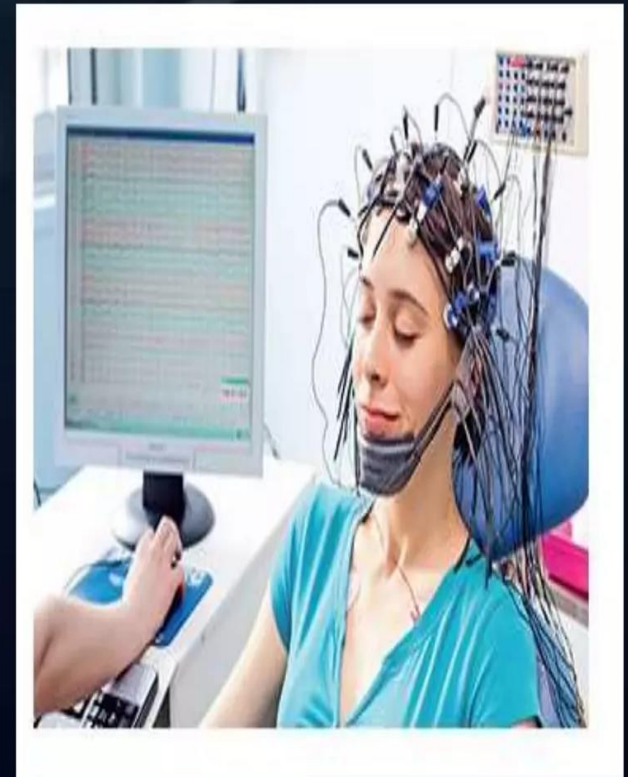
C-Reactive protein
(CRP) test



ELECTROPHYSIOLOGICAL TEST

- *Electroencephalogram (EEG):*

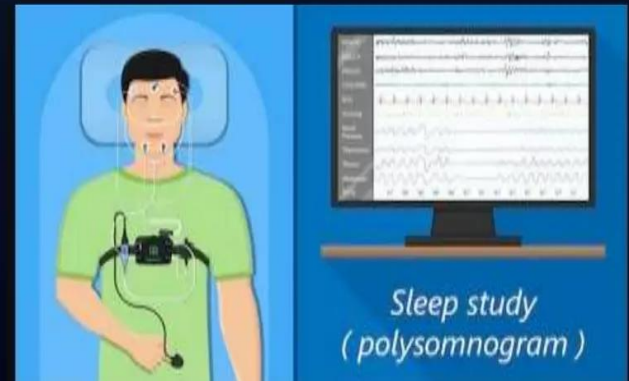
Measures brain electrical activity, identifies dysrhythmias & asymmetric, used in the diagnosis of seizures, dementia, neoplasm, stroke, metabolic or degenerative disease.



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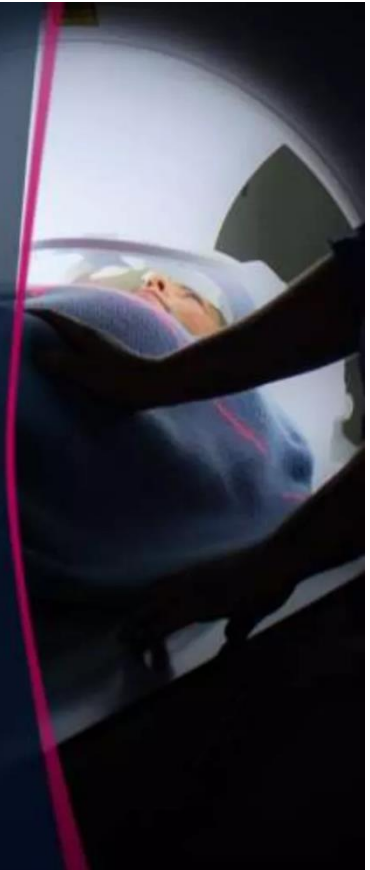
Polysomnography /sleep studies:

Used in the diagnosis of sleep disorders & seizures.



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- **Computed Tomography (CT) scan:** Measures accuracy of brain structure to detect possible lesions, abscesses, areas of infarction or aneurysm. CT scan also identifies various anatomic differences in patients with schizophrenia, organic mental disorder & bipolar disorder.
- **Magnetic Resonance Imaging (MRI) scan:** Measures the anatomic & biochemical status of various segments of the brain; detects brain edema, ischemia, infection, neoplasm, trauma & other changes such as demyelination used in the diagnosis of dementia, to detect morphological changes in schizophrenia patients.

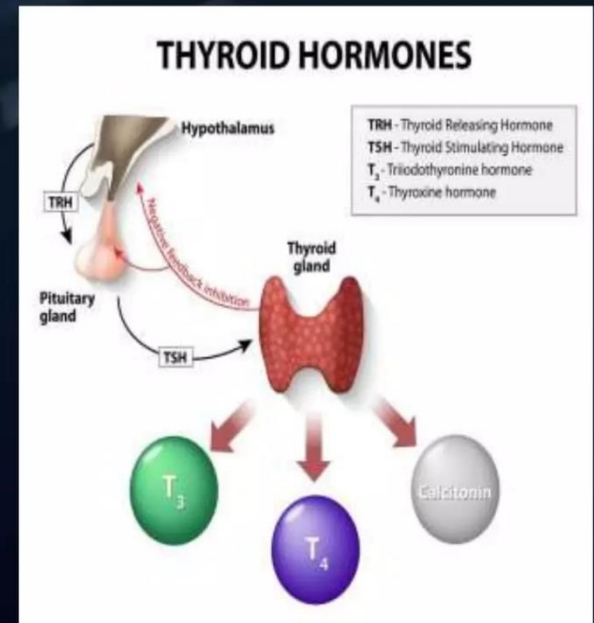


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4. Neuro-endocrine Test

Commonly used neuro-endocrine tests are

- *Dexamethasone suppression test*
- *TRH stimulation test*
- *Serum prolactin levels*
- *Serum 17-hydroxycorticosteroid*
- *Serum melatonin levels.*



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5. Genetic Test

Cytogenetic work-up is advised in some cases of mental retardation.



