The use of screening investigations in psychiatry has been a topic of discussion for many years. According to Thomas screening investigations are performed for 4 main reasons:
• to exclude physical conditions presenting with psychiatric symptoms
• to exclude physical conditions resulting from psychiatric conditions
• to detect physical conditions coinciding with psychiatric illness
• to detect side-effects of treatment.

Little has been said about appropriate special investigations for mental disorders in the South African setting, especially in primary health care. Due to constant limitations and constraints, it is necessary to minimise and optimise appropriate screening investigations. When looking at patients attending primary care, there seem to be two sets of patients warranting investigations. The first is the group being managed within the primary care setting and the second is the group in need of referral to a psychiatric facility for management.

**Patients managed at primary care level**

The Western Cape Provincial protocol for routine screening investigations of first presentations to psychiatric services for organic, psychotic and mood disorders suggests the following guidelines:
• Psychotic disorders
  • rapid plasma reagent (RPR) and fluorescent treponemal antibody (FTA) or Treponema pallidum haemagglutination (TPHA)
  • human immunodeficiency virus (HIV) (with consent if clinically indicated)
• Major depression: thyroid stimulating hormone (TSH)
• Anxiety disorders: TSH
• Dementia
  • RPR and FTA/TPHA, haemoglobin (Hb), white cell count (WCC), random glucose, urea or creatinine, gamma glutamyl transpeptidase (GGT), serum vitamin B12 and serum folate.
• HIV (with consent if clinically indicated).

Any further investigations should be determined by specific clinical indicators.

**Patients needing referral to a psychiatric facility**

This is a more difficult group of patients because of possible premature referral of ‘medically clear’ patients or unnecessary requests from the receiving psychiatric hospital. Proposed guidelines for the screening of patients for medical disorders before referral are discussed below.

**Low suspicion of a general medical condition (GMC)**

• Patients with a known past psychiatric history or a history of psychiatric symptoms of over 1 month’s duration.
• No recent past medical or surgical history, in particular no recent history of head injury, epilepsy or severe alcohol abuse.
• Fully orientated and not confused.

In these patients a physical examination with basic observations (pulse rate, blood pressure, temperature, and blood glucose level) is indicated prior to referral. Include urine dipstix to exclude a urinary tract infection if the patient is older than 60 years.

**High suspicion of a GMC**

This would include patients with any of the following:
• No past psychiatric history, with recent (less than 1 week) onset of psychiatric symptoms.
• Not fully orientated, at times confused.
• Recent severe alcohol abuse.
• HIV-positive or a high clinical suspicion thereof, and clinically WHO stage 3 or 4 (AIDS).
• A history of epilepsy.
• Chronic medical illness.
• A first presentation of psychiatric symptoms in any patient over the age of 50 years.
• Patients on multiple or high dosages of medications.

In such cases the following investigations are indicated before the patient should be considered for a transfer to a psychiatric hospital:
• Full physical examination and observations, as well as urine dipstix and blood glucose level.
• Blood tests
  • WCC – if > 15 × 10⁹/l or < 4 × 10⁹/l, further investigation is required
  • Hb: fingerprick test sufficient unless < 10 g/dl
  • serum sodium and creatinine.
• Lumbar puncture (LP) is required in patients who have any of the following:
  • known VDRL-positive
  • HIV-positive and WHO stage 3 or 4
  • abnormal chest X-ray suggestive of active TB,
  • any suggestion of meningeval irritation or raised temperature of unknown origin.
• Chest X-ray
• CT scan of the brain if any of the following are present:
  • any new focal neurological abnormality
  • a history of alcohol abuse and unexplained disorientation
  • any patient with a decreased level of consciousness with no clear cause.

**Special cases**

Please note that in certain cases, as identified below, particular investigations are indicated:
• HIV-positive or a high clinical suspicion thereof and WHO stage 3 or 4 (AIDS); LP, CT of the brain if not fully orientated, and investigations to rule out secondary infections and
malignancies.
• History of epilepsy.
• Exclude status epilepticus, especially partial or non-convulsive status (EEG may be indicated).
• Head injuries and drug toxicity must be considered and excluded (e.g. blood levels of anticonvulsants).
• Chronic medical illness (hypertension, diabetes, epilepsy, COPD).
• Appropriate investigations to show that psychiatric symptoms are not secondary to medical illness.
• Catatonia – the vast majority of causes of catatonia are non-psychiatric and therefore all of the aforementioned investigations, including EEG are mandatory.

Please note that this guideline should not be a substitute for clinical judgement and, in cases of uncertainty, consultation with a psychiatrist is recommended.

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Further reading