PRE-OPERATIVE INVESTIGATIONS

*The following schedule of suggested tests is to guide the general medical evaluation of the patient prior to an actual or potential significant physiological stress such as surgery. This role is much broader than 'Screening tests for Anaesthesia'. Conducting a test carries a responsibility for ensuring the result is acted on. Discussion with the Surgeon and the procedural Anaesthetist is advised, particularly before repeating tests that have been done previously, or ordering tests that seem unnecessary or may delay patient care.*

**Complete blood count**
1. Age > 60 years, except minor surgery
2. History or physical examination suggesting anaemia
3. Known cardiac, pulmonary or renal disease; malignancy
4. As baseline when massive blood loss is anticipated
5. Bleeding tendency as evidenced by history or physical examination
6. Suspicion of infection

**Coagulation profile (INR and APTT)**
1. Bleeding tendency as evidenced by history or physical examination
2. Patient on warfarin, heparin or another medication altering the coagulation profile
3. Hepatic disease

**Liver Function Tests (inc. Albumin)**
1. Unwell, high-risk or frail patient
2. Known hepatic disease
3. Chronic alcoholic
4. Malnourished patient or patient on TPN.
5. Possible drug/liver function interactions

**Electrolytes/Renal Function Tests (EUC)**
1. Age > 60 years
2. Cardiac or vascular disease
3. Renal disease
4. Diabetes Mellitus
5. Patient on drugs than can affect the electrolyte balance (e.g. diuretics) or those affected by renal function (e.g. digoxin).
6. As a baseline for major surgery
7. Patient on TPN
8. Patient having bowel preparation for surgery
9. Recent vomiting and diarrhoea

**Hb A1C Level**
1. Diabetic patient with uncertain control
2. Possible undiagnosed diabetes

**Arterial blood gases**
1. Metabolic decompensation (e.g. DKA)
2. Complex Pulmonary Disease
3. Cyanotic heart disease

**Chest X-Ray**
1. Significant cardiac failure or pulmonary disease having abdominal/thoracic or other major surgery.
2. Not generally needed for asthmatics

**ECG**
Not generally required if ECG within the past 6 months available and condition is stable.
1. Age > 50 years (male) or > 60 years (female).
2. Cardiac disease as evidenced by history or physical examination.
3. Patients with cardiac risk factors.

**Spirometry**
1. Asthma/CAL
2. Smokers >10/day
3. Previous thoracic surgery

**Lung Function Tests**
1. Complex pulmonary disease
2. Previous pneumonectomy
3. Spinal scoliosis
4. Neuro-muscular disease

**C-spine X-Ray**
Consider if flexion and extension views required.
1. Down’s syndrome
2. Significant Rheumatoid Arthritis

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*All patients: check Infection Control (multi-resistant organism) alert status*

*Adapted from M G Irwin. Implementation and evaluation of guidelines for preoperative testing in a tertiary hospital. Anaesthesia and Intensive Care: Jun 2002 30, 3; p326;*