

PREOPERATIVE PATIENT PREPARATION PROTOCOL

Each surgical discipline should have a standard set of published guidelines for the preparation of its patients for theatre procedures.

These should be readily available in the wards and should be given to all doctors working in that department.

Using guidelines for the preparation of patients for surgery has been shown to reduce hospital costs due to unnecessary special investigations, without increasing surgical risk.

It also provides a basis for junior doctors to rationally order the minimum of special investigations without risking unnecessary cancellation or deferment of operations.

It must be stressed that these are minimum guidelines.

Although it would be preferable to have a standard protocol for the whole hospital, it is accepted that there are variations in each discipline.

It is thus suggested that where the HOD feels necessary, each discipline should modify these guidelines rationally to suit their department without resulting in the under-ordering of tests.

The suggested guidelines below have been taken from international guidelines compiled from multiple studies and personal preferences of the Department of Anaesthesia, Kimberley Hospital.

**Dr PJ KENNY
CONSULTANT AND ACTING HEAD
DEPARTMENT ANAESTHESIA**

SUGGESTED GUIDELINES FOR REQUESTING PREOPERATIVE SPECIAL INVESTIGATIONS

BASIS:

The basis of any protocol of this type is the **THOROUGH CLINICAL EXAMINATION** of the patient presenting for an operative procedure and using the clinical findings to guide the request for special investigations.

Blanket or shotgun approaches are expensive and unnecessary and do not necessarily add much to the clinical assessment, nor do they ensure readiness for operation.

It is poor practice to order tests on the basis of disease type alone without the examination of the patient.

It is also poor practice to order tests preoperatively, but not check the results. The tests are being performed for the patient, not to please the anaesthetist.

It is the duty of the specific operative discipline's medical officers to ensure that results of requested tests have been checked and are readily available in the patient's file, prior to the anaesthetist's preoperative evaluation.

Obviously greater care must be taken during assessment of the elderly, acute or clinically ill patients and decisions regarding special investigations might differ greatly compared to healthy patients.

For example, a healthy middle-aged patient presenting for a minor procedure might need only a ward Hb, whereas a patient of the same age with diabetes, hypertension and cardiac failure might need FBC, u+e's, gases, glucose, HbA1C, ECG, CxR and echocardiogram with preoperative consultation with physicians, anaesthetists and critical care staff in preparation for the same procedure.

It should become second nature to examine the preoperative patient with the questions in mind:

- 1. What pathophysiology is present and is it stable or unstable?**
- 2. What must I do to rectify any abnormal physiology preoperatively?**
- 3. What investigations should I do to help me to determine the degree of abnormality or the effectiveness of my measures taken to correct the abnormality?**

INVESTIGATIONS

Ward Hb, urine dipstix and mass routine in **all** patients

Lab Hb

- where ward Hb < 12g% and anything more than minor surgery is planned
- clinically anemic
- recent transfusion
- recent procedure with significant blood loss, but not transfused
- operations where major fluid shifts likely or possible blood loss > 500ml
- neonates or physiological age ≥ 70 yrs
- malignancy, renal disease, smoking ≥ 20 pack-years, anticoagulant use

FBC with platelets

- known haematological problems
- any patient with sepsis or possible DIC
- recent procedure with substantial sepsis or blood loss with transfusion
- CNS disease
- known HIV+ patients

INR/clotting profile

- patients on warfarin or unfractionated heparin
- patients with malignancy or recent radiotherapy
- jaundiced patients, alcoholics or known hepatic disease
- known or suspected bleeding disorder
- suspected or confirmed DIC/sepsis

Ureum+electrolytes, Creatinine

- patients with dehydration, confusion, malnutrition or recently fluid resuscitated
- major surgery
- physiological age ≥ 70 yrs
- renal disease, CVS disease, CNS disease
- diabetics
- use of diuretics, ACE-inhibitors, digoxin or steroids;

Protein + Albumin

- high risk major surgery
- malnutrition/wasted patients
- septic patients
- malignant disease

Glucose

- diabetics
- physiological age \geq 70yrs
- major procedures
- steroid use
- CNS disease

HbA1C

- known diabetics with suspected poor control
- recently diagnosed diabetics

LFT's

- known hepatic disease
- jaundiced patients
- recent hepatitis/hepatitis exposure

Thyroid functions

- if a patient is chronically stable on thyroid hormone replacement (Eltroxin), is asymptomatic and clinically euthyroid: no test is needed unless major surgery is anticipated
- for all patients on thyroid hormone replacement with symptoms of thyroid dysfunction, poor compliance, recent dose change or poor follow-up, do a TSH screen – if this is normal or low and patient clinically euthyroid, no further tests are required
- do full thyroid function tests for:
 - all patients recently (<6mths) diagnosed as thyrotoxic
 - patients on thyroid suppressive therapy (Neomercazole and/or β -blockers)
 - patients recently (<6mths) started on thyroid hormone replacement who are not asymptomatic or who have not been tested as normalised on treatment within the last 2months

Chest X-ray

- known or clinical cardiac/respiratory disease
- smoker \geq 20 pack-yrs
- physiological age \geq 70yrs
- major procedures
- malignancy or radiation therapy

ECG

- clinical/known cardiac/respiratory disease
- diabetics
- physiological age \geq 70yrs
- major procedures
- digoxin / anti-dysrhythmic use
- CNS disease
- malignancy or radiation therapy

Echocardiogram

- known with symptomatic valve pathology and no echo or cardiology assessment within the last year
- undiagnosed pathological murmur with/without symptoms (ask for medical assessment first)
- known or suspected cardiomyopathy (especially peripartum)
- all pregnant cardiac patients
- unstable angina and/or myocardial infarct within last 6mths
- previous CABG, but no cardiological assessment within the last 3 years
- uncontrolled, symptomatic or recently treated cardiac failure
- HIV+ patients with cardiac symptoms
