

## **ROUTINE PRE-OPERATIVE INVESTIGATIONS**

Dr Ng Siew Hian, *Pulau Pinang Hospital*

### **Background:**

It is common practice to routinely carry out a list of laboratory as well as radiological investigations, and often electrocardiography as well, on patients prior to them undergoing elective surgery. This is generally for pre-operative anaesthetic assessment, usually carried out after admission to the ward, irrespective of the clinical condition of the patient.

### **Objective:**

To assess the cost effectiveness of routine investigations carried out prior to elective surgery.

### **Methodology**

Study of similar assessments done overseas and published literature. A local survey was also carried out.

### **Results:**

It was found that the vast majority of routine pre-operative investigations are not taken into account in patient management, and that they consume a large amount of resources. A survey of the local situation revealed a similar pattern. It was found that practices varied in public hospitals throughout the country. There were differing sets of investigations depending on the age of the patients - whether more or less than 35 or 40 years of age. A detailed study in three hospitals revealed a large number of investigations of which most tests had normal results. Subsequently, a needs-based approach rather than routine investigations prior to surgery were carried out. There was a significant decrease in the number of investigations although the number of tests with abnormal results was still low. Despite the change from routine to needs-based investigations, there was no increase in the percentage of operations being postponed or cancelled for clinical reasons.

### **Recommendations**

This assessment recommended pre-operative investigations for elective surgery not be carried out on a routine basis. Instead patients should be investigated based on their individual needs. Further, it is suggested that pre-operative anaesthetic screening be carried out on an ambulatory basis rather than after the patient is admitted for surgery.