FAQ: Standards on Provision of Electrocardiography Stress Testing (EST)

Patient Selection

1. My patient prefers an EST as part of his health screening as compared to a resting ECG. Can I offer EST in such a scenario?

   • EST may be included as part of a general / executive screening package as an optional test. However, it is important that a proper risk assessment by the attending physician should be done to determine if it is indicated for the individual as per current cardiology guidelines

   • In addition to the Standards on EST, the Ministry would also like to remind doctors to adhere to the Ministry of Health (MOH) Circular (No.4/2011) on Report of the Screening Tests Review Committee issued on 4 Mar 2011. As indicated in the report (page 21), EST belongs to Category 2 screening test recommended only in selected individuals.

2. What are some examples of cardiac risk score?

   • Some examples of cardiac risk score include but not limited to, the Framingham Risk Score or the Pooled Cohort Atherosclerotic Cardiovascular Disease Risk Equations.

3. What are some examples of international cardiology guidelines that I may refer to?

   • Some examples of international guidelines include but not limited to American College of Cardiology/American Heart Association 2002 Guideline Update for Exercise Testing, or American College of Cardiology Foundation/American Heart Association 2010 Guideline for Assessment of Cardiovascular Risk in Asymptomatic Adults.

4. My patient does not fall into the recommended selection criteria in any of the international cardiology guidelines. Can I still offer EST to him?

   • EST can be offered but the patient shall be informed that he/she does not fall within the recommended patient selection criteria and consent shall be taken. The signed acknowledgment should be kept in the patient’s medical records.

5. I have some VVIPs or referrals from insurance companies that require EST to be included as part of the health screening process. Do I apply the same criteria that the patient must also sign an acknowledgement stating that he/she is not within the current indication for EST?

   • Yes.
Specific Requirements on Personnel and Training

6. Can an Enrolled Nurse assist the doctor in the EST procedure?
   - The person assisting the doctor in the EST procedure can be an Enrolled Nurse provided he/she is:
     a) Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED)-certified; and
     b) Proficient in the use of EST equipment comprising the motorised treadmill/braked ergometer, the ECG recording system and blood pressure monitor.

7. I have been performing EST for many years as a SMC-accredited Family Physician (but without MMed) and trained in Basic Cardiac Life Support (BCLS) and CPR. Can I continue to perform EST?
   - You may continue to perform EST as long as you have records to show that you are:
     a) Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED)-certified; and
     b) Proficient in the use of EST equipment comprising the motorised treadmill/braked ergometer, the ECG recording system and blood pressure monitor.
   - However, if you are also the supervising doctor, you will need to complete a MOH-approved course, for e.g. the Academy of Medicine, Singapore (AMS)-organised course “Understanding the Standards on Provision of Electrocardiography Stress Testing – A short course on meeting the new requirements”.

8. Can the day-to-day supervision of EST be performed by a General Practitioner (GP)?
   - A GP can oversee the operation and provision of EST services if he/she completes a MOH-approved course, for e.g. the Academy of Medicine, Singapore (AMS)-organised course “Understanding the Standards on Provision of Electrocardiography Stress Testing – A short course on meeting the new requirements”.

9. Does the Cardiologist/Respiratory Specialist need to be physically present all the time to oversee the provision of EST at the facility?
   - The Cardiologist/Respiratory Specialist or the designated supervising doctor must be physically present if he/she is overseeing the provision of an EST service as stated in the EST Standards para 5.1 (Table 1).
10. I am the sole medical practitioner at my practice providing EST services.

a) What is the difference between the supervising doctor and the performing doctor?

- The **supervising doctor** oversees the operation and provision of EST services. He/she must be in close proximity while EST is performed to be able to be called upon to do resuscitation if required.
- The **performing doctor** must be with the patient in the exercise room during EST at all times in order to ensure patient safety.

b) Can the performing doctor also be the supervising doctor?

- The performing doctor can also be the supervising doctor as long as he/she fulfils the qualification and training requirements for both roles as stated in EST Standards para 5.1 (Table 1). However while performing EST, there must be another staff in close proximity to be called upon to do resuscitation in the case of an emergency.

c) I am keen to interpret and report the EST tests myself instead of referring to a cardiologist. How do I go about meeting the requirement of co-reporting minimally 200 EST results?

- This requirement on co-reporting ensures proficiency before solo interpretation of EST results is done by a non-cardiologist. The 200 co-reported EST results can include either retrospective or prospective cases. Documentation in the form of a logbook of co-reported EST results must be kept.

**MOH-approved course**

11. When is the MOH-approved course, and where can I sign up for it?

- The details of the course is published on the College of Physicians, Singapore website (http://ams.edu.sg/colleges/CPS/home).

12. I am a GP designated as the supervising doctor. What if I am unable to attend the course?

- Please contact AMS to enquire on the next scheduled course.
- If the GP did not manage to attend the course and would like to continue supervising EST services after the Standards takes effect, he/she may write in to Regulatory Compliance and Enforcement Division through the e-LIS website (https://elis.moh.gov.sg) with the following information:
a) How long have you been offering EST services at your centre?
b) What is the volume of EST performed at your centre on a monthly basis?
c) What are the reasons for performing EST on the patients?
d) What does your medical qualification include?

We will consider the application on a case-by-case basis depending on the applicant’s past training and experience, relevant medical qualifications and current competencies in rendering EST services.

13. I am a medical practitioner with internal medicine specialist degree and have been performing EST services and/or reporting EST results over the years. May I be exempted from attending the course and continue to provide EST services and/or report EST results at the clinic?

Please write in to Regulatory Compliance and Enforcement Division through the e-LIS website (https://elis.moh.gov.sg) with the following information:

a) Details of your specialist degree (e.g. MRCP, FRACP, etc.);
b) The number of years that you have been performing EST services and/or reporting EST at your clinic; and
c) The estimated number of ESTs that you perform and/or read per year.

We will consider the application regarding exemption from attending the course and to continue providing EST services and/or reporting EST results at the clinic, on a case-by-case basis.