

D-Dimer in Suspected Pulmonary Embolism (PE)

A statement from the British Thoracic Society Standards of Care Committee Dec 2006

D-dimer blood test is extremely useful in assessment of patients with suspected PE *providing the following principles are understood, implemented and regularly reviewed:*

- **ONLY A NORMAL RESULT [WHICH EXCLUDES PE] IS OF ANY CLINICAL VALUE; AN ABNORMAL RESULT [HOWEVER HIGH] DOES NOT IMPLY A SIGNIFICANTLY INCREASED PROBABILITY OF PE.**
- *Before the test is requested the patient must have had:*
 1. A good quality departmental erect PA chest radiograph, *and*
 2. A full evaluation by an experienced middle grade doctor, so that alternative diagnoses have been carefully considered, *and*
 3. Documentation of clinical probability [BTS method recommended].
- It is strongly recommended that the test is *not* available to less experienced juniors.
- Vigilance is required to ensure that this test is not being requested inappropriately. Proper use of D-dimer tests in the context of wise clinical assessment will result in radiological confirmation of PE in at least 25% of cases, a fruitful audit topic.
- Failure to observe these principles partly explains why in many hospitals imaging tests for PE, particularly CTPA, are (a) increasing in number [and exposure to radiation] and (b) decreasing in yield - the reverse of what was intended.

Links:

www.brit-thoracic.org.uk/iqs/sid.07469940700529187600314/bts_guidelines_pe.html

Miller AC, Boldy DAR. Pulmonary embolism guidelines: will they work? *Thorax* 2003;**58**:463.