

European Respiratory Society Annual Congress 2013

Abstract Number: 1837

Publication Number: P4107

Abstract Group: 4.3. Pulmonary Circulation and Pulmonary Vascular Disease

Keyword 1: Embolism **Keyword 2:** Imaging **Keyword 3:** No keyword

Title: Do we ever learn? Risk stratification and investigation of suspected pulmonary embolism

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Body: Introduction: The British Thoracic Society (BTS) advise that patients with suspected PE should have a pre test probability (PTP) before requesting CTPA. A low or moderate PTP combined with a negative D Dimer excludes PE in over 97% of cases. In May 2012 an audit of the management of suspected PE was conducted with education measures. Objectives: To assess whether there is an improvement in CTPA requesting. Methods: We conducted a retrospective audit of inpatient CTPA requests, between August and December 2012. Results: 289 CTPAs were performed. 12(4%) patients had a documented PTP. 214(74%) had documented clinical information considered as part of their risk stratification. In May 2012, 9/42 (24%) patients had a documented PTP. 236(82%) patients had an appropriate D dimer requested, in comparison to 64% previously. The following tables show the PPV of the Wells score and the predictive value of the D dimer in our study.

PTP (Wells Score)	CTPAs	+ve for PE	-ve for PE	Positive predictive value
Total	289	69 (24%)	220 (76%)	23.8%
Low Risk	188	35	153	18.6%
Moderate Risk	64	23	41	35.9%
High Risk	37	12	25	32.4%
< 4 PE Unlikely	238	40	198	16.8%
> 4 PE Likely	51	29	22	56.8%

D Dimer result (247 total requests)	+ve PE	-ve PE	Predictive Value
Negative (< 250 ng/ml)	0	90	100% (Negative Predictive Value)
Positive (> 250 ng/ml)	49	108	31.2% (Positive Predictive Value)

Conclusion: As a Trust, we are recording PTP even less than before; resulting in inappropriate CTPA requests. D dimer requesting has improved. These measures have a good predictive value in our study. Overall, the use of the BTS guidelines has improved with education. However revision of this is necessary in order to maintain a high standard of care.