that PE is associated with abnormal concentrations of many proteins involved in inflammation and vascular injury, yet there is inadequate data describing the difference in these proteins from infective processes.

Aims We aimed to determine whether there is a difference in inflammatory markers between acute PE and community acquired pneumonia (CAP) or acute lower respiratory infection (LRTI).

Methods A random sample of emergency departments (ED) and patients evaluated for acute PE at our institution (January 2013–December 2013) were retrospectively evaluated for D-dimer, C-reactive protein (CRP) and serum white cell (WCC) levels. PE was diagnosed by a positive CTPA in all cases. Inflammatory markers in confirmed PE cases were compared and matched with those of community acquired pneumonia (CAP) and acute lower respiratory infection (LRTI). We excluded all cases with incidental, chronic or previous PE.

Results A total of 295 patients were included (mean age 67.7 ± 18.45 yrs; 159 males), of which 167 (56.6%) had PE, 58 (19.7%) had CAP, 63 (21.4%) LRTI and seven (2.4%) had other respiratory conditions (Table 1). The mean WCC (g/l) was similar between PE (10.9 ± 4.8), pneumonia (11.9 ± 5.2) and acute LRTI (12.2 ± 5.9) (p = 0.2). Similarly, there were no significant differences among disease groups for median CRP levels (mg/l); PE (67.3 (4–412); CAP (88.9 (12–417) and acute LRTI (median 68.9 (9–284), (p = 0.322). In contrast, levels of D-dimer were significantly higher in PE than CAP or ARTI) (p = 0.000).

Conclusions In patients suspected of acute PE, unlike D-dimer, levels of WCC or CRP do not reliably distinguish between PE, pneumonia or acute LRTI. These may not be relied upon to determine the clinical probability of PE.

P164 ΔNTPROBNP PREDICTS SURVIVAL AND MORE ACCURATELY REFLECTS CHANGING RIGHT VENTRICULAR STRUCTURE AND FUNCTION THAN 6MWD IN PULMONARY HYPERTENSION

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Right ventricular (RV) function is known to predict survival in pulmonary hypertension (PH). Furthermore, increasing right ventricular volumes (RVEDVI, RV end diastolic volume and RVESVI, RV end systolic volume index) and falling ejection fraction (RVEF) whilst on treatment have been shown to determine poorer outcome.[1] Measurement of RV function by cardiac MRI (CMR) is not widely available and often poorly tolerated in very breathless patients. Monitoring of PH patients traditionally focuses on serial 6 min walk testing (6MWD) and N terminal pro brain natriuretic peptide (NTproBNP), a biomarker that has been shown to reflect RV function and structure.[2] We hypothesised that ΔNTproBNP is a superior non invasive marker of ΔRV function than Δ6MWD, and predicts survival.

Abstract P164 Table 1 Pearson correlations for ΔNTproBNP and Δ6MWD with indices of ΔRV function. Abbreviations; right ventricular ejection fraction RVEF; right ventricular end diastolic volume index RVEDVI; right ventricular end systolic volume index RVESVI; stroke volume index SVI

	ΔNTproBNP			Δ6MWD		
RV variable	(n)	Correlation coefficient	P value	(n)	Correlation coefficient	P value
ΔRVEF	101	-0.517	<0.0001	121	0.277	0.002
ΔRVEDVI	101	0.517	<0.0001	121	-0.093	NS
ΔRVESVI	101	0.664	<0.0001	121	-0.234	0.01
ΔSVI	100	-0.407	<0.0001	120	0.367	<0.0001

Methods 59 patients with precapillary PH whom underwent serial CMR between 2004 and 2014 with 6MWD and/or NTproBNP sampling within 1 month of scan were retrospectively included. 146 ΔRV function values were calculated. For survival analysis, patients were censored at last day of study (24/6/14) or if lost to follow up. Survival was taken from the date of the second CMR scan. Due to the interaction between cardiac MRI values, only univariate survival analysis was performed.

Results ΔNTproBNP correlates more closely with ΔRVEF, ΔRVEDVI, ΔRVESVI than 6MWD (table1). Both ΔNTproBNP and Δ6MWD predicted survival [HR 1.001 95% CI 1.001–1.002 p

Conclusion ΔNTproBNP is superior to Δ6MWD as a surrogate marker of changing RV function which can be easily evaluated in the clinic setting. Both ΔNTproBNP and Δ 6MWD predict survival in PH.

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P165 AMBULATORY MANAGEMENT OF SUSPECTED PULMONARY EMBOLISM AT A DISTRICTGENERALHOSPITAL. A 2 YEAR REVIEW

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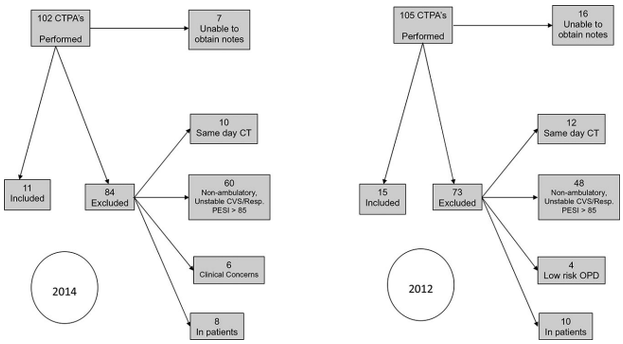
Background Studies have suggested that outpatient (OP) management of suspected pulmonary embolism (PE) is feasable.[1] At our DGH (popn 289400) in 2012 we found that over a 2 month period most suspected PE patients (suitable for ambulatory care) were being identified resulting in significant (17 nights) bed savings.[2]

The aims of repeating our study were

1) to ascertain the proportion of patients who had a CTPA that were managed as OP and subsequent nights saved 2) to identify any further patients that could have been managed as OP and potential nights saved 3) a comparison with 2012

Methods RADIS was used to collect all CTPA's performed between 1st Jan 2014 and 28th February 2014. Inclusion criteria: Ambulatory, normal heart rate, respiratory rate, blood pressure and oxygen saturations, any patient who was managed as an OP. Simpflified PESI Score <1. Exclusion criteria: Pre-existing in-patients that had a CTPA ordered where the primary admission (and in-patient stay) was not for suspected PE,patients who had their CTPA on the same day of discharge, OP CTPA where waiting time was >2 weeks, sPESI Score >1, clinical concern.

Results For the above period 102 CTPA's were performed (105 in 2012). Average time from request to CTPA was 4.7 h (0.5–24 h. 4.1 hrs in 2012) Figure 1 shows the excluded patients.9 patients were included;7 were female, average age 47 years (23–66 years). All had a sPESI score



Abstract P165 Figure 1 Flowchart of outcomes of all CTPA's collected during 2014 and 2012

Conclusion The number of ambulatory patients investigated for PE has reduced from 2012 to 2014 which probably reflects an increased acute physician presence at our DGH but some bed savings (7 nights over our 2 month period) were still made. Over 2 years approximately 180 ambulatory patients have been investigated and managed for PE at our DGH with no adverse incidents to date.

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P166 PATIENTS WITH CONFIRMED AND SUSPECTED PULMONARY EMBOLI HAVE THE SAME TWO-YEAR MORTALITY

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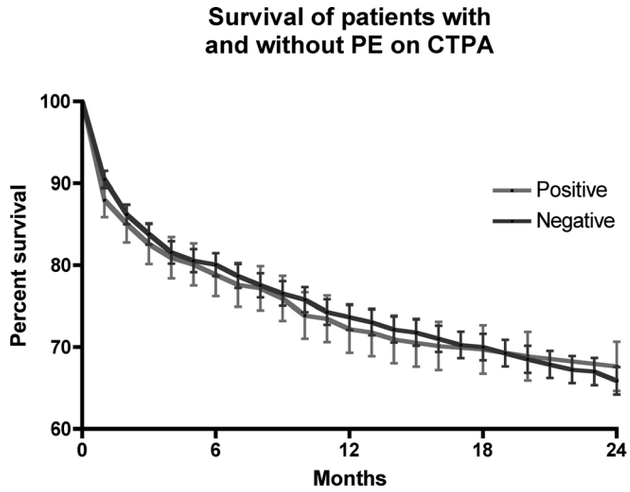
Introduction There is limited information regarding long-term survival following Pulmonary Embolism (PE), and no data on survival of patients that have undergone CT Pulmonary Angiography (CTPA) but found to be thrombus negative. The positive rate of PE detection in patients undergoing CTPA is variable, ranging from 4.7–25.8% and there is a high reported incidence of incidental pathology discovered during this investigation. We sought to determine the comparative survival of patient undergoing CTPA that were thrombus positive compared with those without a PE. We also sought to determine the rate of PE detection and characterise the nature of incidental findings found in patients undergoing CTPA.

Methods We retrospectively reviewed data on all CTPA investigations conducted between April 2010 and April 2012. All abnormalities reported on CTPA were reviewed and compared with previous imaging from the last 6 months to determine if they were new findings. Follow-up investigations and out-patient attendances were obtained for all new findings reported on the index CTPA, and 2 year mortality rates were established from regional registry data.

Results Of the 1043 patients suitable for analysis, 241 (22.4%) were thrombus positive. The thrombus positive cohort consisted of 47.7% males compared with 40.7% in the thrombus negative group (difference 7.1% [-0.0 to 14.2, p = 0.52]). Survival at 2 years following CTPA was 67.6% in thrombus positive patients and 65.9% in thrombus negative patients with a hazard ratio of 0.96 (95% CI, 0.74 to 1.23, p = 0.721) (Figure). Incidental findings were detected in 51.1% of CTPA examinations including: consolidation/collapse (19.5%), effusion (16.7%), neoplasia (13.5%), lymphadenopathy (9.8%), heart failure (7.6%) and pulmonary nodules (6.6%). 47.7% of incidental findings were deemed significant as determined by the need for further follow-up of clinical intervention.



Abstract P166 Figure 1 Survival of patients with and without PE on CTPA

Conclusion There is no difference in the 2 year mortality between thrombus positive and thrombus negative patients undergoing CTPA. Many incidental findings found on CTPA are clinically significant.

P167 OUTCOMESAND PREDICTORS OF MORTALITY IN CANCER PATIENTS WITH INCIDENTAL PULMONARY EMBOLISM

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Objectives Incidental pulmonary emboli (iPE) are detected in a significant minority of contrast CT scans performed during the management of patients with cancer. These patients are reported to have an increased mortality compared to matched controls. This study investigates outcomes and predictors of mortality following iPE.

Methods Reports of all contrast-enhanced CT scans including the chest, excluding dedicated CT pulmonary angiography, performed between 1st May 2012 and 30th September 2013, were searched for prospectively identified iPE. Clinical data was collected from multiple sources, including clinic letters, discharge summaries, and the hospital patient database. Patients presenting with acute symptoms consistent with PE or those already receiving therapeutic anticoagulation were excluded. Potential clinical and radiological predictors of mortality were defined pre-hoc and tested using Student's t-test and Cox proportional-hazard regression.

Results There were 160 cancer patients with iPE. Anticoagulation treatment was given in 97% of cases. Overall 30-day and 6-month mortality following iPE was 20.6% (95% confidence interval 15.0–27.6%) and 52.5% (44.8–60.1%), respectively. Increased 30-day and 6-month mortality was observed in scans performed on inpatients compared to outpatients (38.2% vs 11.4%, p = 0.0004 and 78.2% vs 40.0%, p < 0.0001). 6-month mortality was also increased if this was a new diagnosis of

Corrections

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