Unprovoked DVT Screening – 2 years follow up
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INTRODUCTION
Venous thromboembolic disease (VTE) is common. A recent epidemiological study estimated over 1 million episodes of VTE annually across 6 EU countries with 466,000 estimated as presenting with deep venous thrombosis (DVT) alone, 296,000 with pulmonary embolism (PE) and 370,000 with VTE-related death. Cohort studies estimate that 10% of patients presenting with idiopathic VTE are subsequently diagnosed with cancer within 5-10 years and 75% of these diagnoses are made in the first year. The most common malignancies associated with thrombosis are those of the breast, prostate, colon, and lung, reflecting the prevalence of these malignancies in the general population. Extensive testing detects more of these cancers but there is no evidence to support a mortality benefit from this approach and 90% of cancers can be picked up with a careful history and simple tests. Nevertheless, in June 2012, NICE CG144 recommended that we “consider further investigations for cancer with an abdomino-pelvic CT scan (and a mammogram for women) in all patients aged over 40 years with a first unprovoked DVT or PE who do not have signs or symptoms of cancer based on initial investigation.”

The purpose of this review was to evaluate adherence to this quality standard and examine the incidence of cancer in 2 years follow up of unprovoked DVT patients.

METHODS
Patients over 40 years old presenting between January and June 2013 with newly diagnosed with unprovoked DVT were identified from Nottingham University Hospital’s anticoagulation clinic database. Patients presented via GP referral to the DVT clinic, emergency department or through Acute Medicine. Data on cancer screening including history, examination, basic investigations (urine analysis, full blood count, urea and electrolytes, liver function test, calcium, chest x-ray) and further investigations (abdomino-pelvic CT and mammography) was obtained from electronic records and notes. Electronic records and notes for all patients were also examined to confirm any malignancies diagnosed over the 2 year period subsequent to the index DVT.

OUTCOMES
• 192 patients were diagnosed with doppler-proven DVT. Of these 61 (32%) patients had unprovoked events and were over the age of 40. 27 (44%) were female.
• Basic tests: 100% had Full Blood Count, 98% Urea and electrolyte, 90% Liver Function Test, 51% Calcium, and 49% Urinalysis.
• Further investigations: 52% CT Abdo-pelvis, 15% of female patients had mammography.
• In those who had CT abdo-pelvis and / or mammography, one patient was found to have a cancer (metastatic lung cancer) through screening
• In those who had basic tests alone, 2 cancers were diagnosed over the subsequent 2 years (lung cancer and prostate cancer).

CONCLUSIONS
• Of the 61 patients presenting with unprovoked DVT in the over 40 age group only 49% had all of the basic investigations recommended by NICE CG144 and 52% had the additional tests which this guideline prompts us to “consider”.
• Calcium, liver function testing and urinalysis were the least consistently performed “basic” investigations”.
• With respect to extended screening, physicians seem to be reluctant to order these tests. This might relate to uncertainty about the benefit of doing so or the wording of the NICE guidelines.
• Over a period of 2 years, 3 patients had a new diagnosis of cancer. 1 was picked up through additional testing (CT scan though at a stage of metastatic disease. 2 further patients were picked up through different presentations in the subsequent 2 years giving an over all 2 year diagnosis rate of 5%.
• While there is no doubt that patients presenting with unprovoked DVT (and PE) are at increased risk of developing cancer following this index VTE diagnosis, there remains doubt as to the validity of extended screening given radiation exposure, generation of concerns for patients and cost implications.

REFERENCES
3. NICE:CG144

Right sided lung mass
Left sided infiltrating lung mass