

Patient group	Description	Inclusion	Exclusion	Rationale	Weaknesses
<b>In-patient VTE death</b>	VTE death occurring while in-patient after >3 days of index hospital admission	ICD10 VTE code* from ONS database in position 1# or position 1-3~ of the death certificate after >3 days in-patient stay	ICD10 VTE code at position 1 of the HES admission	Patients admitted with community acquired VTE should be mostly excluded	Relies on accurate HES admission coding in index admission (that primary reason for admission is coded at position 1). Otherwise cases of delayed death after community acquired VTE are included in analysis. Delayed death after admission with non-fatal hospital associated VTE is also excluded
<b>VTE post-discharge deaths &lt;90 days</b>	VTE death occurring after discharge from the index admission within 90 days of discharge	ICD10 VTE code from ONS database in position 1 or position 1-3 of the death certificate within 90 days of discharge	ICD10 VTE code at any position in the HES index admission	Exclude patients with known recent or chronic VTE disease. Focus on failure of primary prevention	Patients with previous history of VTE may be excluded from analysis, even if they develop hospital associated VTE recurrence after the index admission
<b>Non-fatal VTE readmission</b>	Readmission to hospital with non-fatal VTE within 90 days of discharge from index admission	ICD10 VTE code at position 1 or 2 of the HES readmission within 90 days of the index admission	ICD10 VTE code at any position in the HES index admission	Exclude patients with known recent or chronic VTE disease. Focus on failure of primary prevention	Unable to use HES coding to accurately detect non-fatal VTE events occurring during hospital admission. ICD10 VTE code at position 2 not always a primary reason for admission

\*ICD10 VTE codes derived from DH (ref 5)

#Primary VTE death: ICD10 VTE code at position 1 of death certificate.

~VTE associated death: ICD10 VTE code at position 1, 2 or 3 of death certificate.

#### **Supplementary table 1: Methodology for Patient Inclusion/Exclusion using HES/ONS Data**