



Venous Thromboembolism in a large teaching hospital over the last 10 years: changing patterns of disease

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INTRODUCTION

University Hospitals Plymouth NHS Trust (UHP) is a tertiary referral hospital of 900 beds and was designated a venous thromboembolism (VTE) exemplar site in 2009.

National guidance around VTE risk assessment and appropriate prophylaxis was published in 2009 with a financial incentive to achieve 90%, later increased to 95% compliance with documented VTE risk assessment on all patients admitted to hospital

AIM

- To collect information on all VTE events diagnosed in UHP from 1/1/10 to 31/12/19.
- To look at the number of hospital acquired VTE events over the same period
- To compare the number of deep vein thrombosis (DVT) and pulmonary embolism (PE) diagnoses made over the same period

METHOD

- To collect data from targeted investigations being CT pulmonary angiograms, SPECT-CT scans and Doppler ultrasounds of the lower and upper limbs
- To compare positive findings with the hospital information system to see if the criteria for hospital acquired VTE was met

CONCLUSIONS

Over the study period there has been an increase in total PE diagnoses which may be explained by the implementation of more sensitive CT scanners. These can detect smaller sub segmental PE's than previously

The overall reduction in HAT events is linked to an improved awareness of this life threatening condition.

There is also increased use of risk assessment and appropriate prophylaxis

The challenge going forward is to further reduce the number of HAT events

RESULTS

- In 2010 there were 649 total VTE events 329 DVT & 320 PE: 201 (31%) were HAT events being 85 DVT & 116 PE significant association for PE over DVT in HAT events.
- Over the 10 years total VTE increased by 120 to 769 (18%)
- Over same period DVT remained relatively similar 4% decrease
- Whilst PE have increased by 42% from 649 to 769
- In 2010 DVT to PE split was 51:49 compared to by 2019 the split had increased to 41:59
- Total HAT has decreased but PE events remained significantly higher than DVT

All VTE Events 2010 to 2019

YEAR	Total VTE	All DVT (%)	All PE (%)	HAT DVT (%)	HAT PE (%)
2010	649	329 (51)	320 (49)	85 (42)	116 (58)
2011	782	325 (42)	457 (58)	73 (31)	165 (69)
2012	793	311 (39)	482 (61)	71 (33)	146 (67)
2013	805	342 (42)	463 (58)	66 (38)	106 (62)
2014	775	326 (42)	449 (58)	55 (33)	114 (67)
2015	835	340 (41)	495 (59)	60 (31)	131 (69)
2016	852	384 (45)	468 (55)	64 (38)	105 (62)
2017	836	329 (39)	507 (61)	56 (32)	119 (68)
2018	825	338 (41)	487 (59)	65 (35)	121 (65)
2019	769	315 (41)	454 (59)	51 (28)	132 (72)
Total	7921	3339 (42)	4582 (58)	646 (34)	1255 (66)

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