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MANAGEMENT OF VTE IN THE NHS

NATIONAL REPORT 2013



**ALL-PARTY PARLIAMENTARY
THROMBOSIS GROUP**

Awareness, Assessment, Management and Prevention

FOREWORD

Dear Colleague,

As the Chair of the All-Party Parliamentary Thrombosis Group, I am delighted to launch our first report into the management of venous thromboembolism (VTE) in the NHS.

VTE (blood clots) is manifested as deep vein thrombosis (DVT) and pulmonary embolism (PE). It can strike suddenly and in the worst instances can be fatal. It is known that admission to hospital is a major risk factor for VTE, with more than half of all of its cases associated with prior hospitalisation. It has been estimated that the number of deaths due to hospital-acquired VTE in England equates to more than that of deaths from AIDS, breast cancer and traffic accidents combined. Fortunately, the majority of hospital-acquired VTE cases are preventable through the undertaking of timely VTE risk assessment and the administration of appropriate thromboprophylaxis.

Given that thousands of deaths a year could be prevented through the implementation of best practice in VTE prevention in our hospitals, the APPTG has made the preventative element of VTE care the focus of its work since its conception in 2006. Throughout the years the APPTG has campaigned to raise awareness of VTE prevention in Parliament and worked together with NHS leaders to firmly embed high quality VTE prevention as standard practice in our hospitals. We welcomed the fact that VTE prevention was named a national clinical priority for the NHS in 2010 and are delighted that it continues to be the most important patient safety practice in our hospitals to this day.

The approach to VTE prevention adopted by the National VTE Prevention Programme has been recognised as being one of the most comprehensive in the world and was showcased on an international stage at the inaugural meeting of the Global VTE Prevention Forum in 2011. We are proud of the progress that has already been achieved in improving the quality of VTE prevention in the NHS and the APPTG will continue to support our colleagues at the NHS England Patient

Safety Directorate as they look to embed VTE prevention in the structures and processes of the new NHS.

While we recognise that high quality VTE prevention in our hospital needs to remain a priority for NHS, we also know that not all instances of VTE can be avoided. VTE events that take place in the community can be particularly difficult to prevent. It is therefore important that when VTE does occur, healthcare professionals are aware of what constitutes best practice in its management and are effectively supported to deliver this service in practice.

The area of VTE management has received comparatively little attention in recent times. Through the publication of this report, the APPTG aims to provide a snapshot of the current levels of awareness of best practice in VTE management in the NHS, determine the levels of demand for additional professional education, and examine the processes through which healthcare commissioners monitor compliance of the local healthcare providers with NICE guidance. The report is based on a survey of over 800 GPs in England and on the responses to a freedom of information request sent to all newly established clinical commissioning groups.

I hope that you find the report's findings informative and I look forward to working with NHS leaders, as well as NHS practitioners who are charged with delivering VTE management services on the ground, to raise awareness of best practice in VTE management and ensure that it becomes an essential standard of care throughout the NHS.



Andrew Gwynne MP
Chair, All-Party Parliamentary Thrombosis Group



INTRODUCTION

Venous thromboembolism (VTE) is a condition in which a thrombus – a blood clot – forms in a vein. Usually, this occurs in the deep veins of the legs and pelvis and is known as deep vein thrombosis (DVT). The thrombus or its part can break off, travel in the blood system and eventually block an artery in the lung. This is known as pulmonary embolism (PE). The term VTE is a collective term for both DVT and PE.

With an estimated incidence rate of 1-2 per 1,000 of the population, VTE is a significant cause of mortality and disability in England with thousands of deaths directly attributed to it each year. One in twenty people will have VTE during their lifetime and more than half of those events are associated with prior hospitalisation. Given that at least two thirds of cases of hospital-acquired thrombosis are preventable through VTE risk assessment and the administration of appropriate thromboprophylaxis, the prevention of VTE has been a national clinical priority for the NHS since 2010.

The National VTE Prevention Programme in England has been leading the efforts to fully embed VTE prevention in NHS care and its approach has been described by some as the most comprehensive of any healthcare system in the world. VTE prevention has been recognised as the most important hospital safety practice in the NHS, and VTE-specific indicators are present in both the NHS Outcomes Framework and the CCG Outcomes Indicator Set. Furthermore, VTE prevention forms one of the national goals of the Commissioning for Quality and Innovation (CQUIN) payment framework and is also featured in the Standard Contract for Acute Services and the NHS Litigation Authority's Risk Management Standards.

While significant progress has been made with regard to implementing best practice in VTE prevention in our hospitals, not all cases of VTE can be avoided. VTE events which occur in the community, without prior stay in hospital, can be especially difficult to prevent. In order to achieve the best possible health outcomes for people affected by VTE in the NHS, it is important that healthcare professionals throughout the health system are aware of, and act fast to adopt, best practice in the diagnosis and management of VTE diseases as set out by the recently published NICE Clinical Guideline 144 (The management of thromboembolic diseases and the role of thrombophilia testing) and NICE Quality Standard 29 (Quality standard for diagnosis and management of venous thromboembolic diseases).

While recognising that VTE prevention must continue to represent a national clinical priority and that more needs to be done to safeguard its principles in the new NHS structure, this APPTG report presents the results of our research into current levels of awareness of best practice in VTE management in the NHS and its implementation on the ground.

We recognise that effective VTE management engages healthcare professionals across the primary and secondary care boundaries, and have therefore carried out research into attitudes and practices in both care settings. As part of our research, we have surveyed over 800 GPs in England and sent a questionnaire to all the newly established clinical commissioning groups (CCGs). We are also grateful to Lifeblood: The Thrombosis Charity for making available to us the results of their research into VTE management undertaken earlier this year. The key findings of our research are summarised on the following page.

KEY FINDINGS

PRIMARY CARE

Only **1/3** of GPs would say that they are fully aware of what constitutes best practice in diagnosing patients with suspected DVT and that they are very confident when following this process in practice.

3/4 of GPs indicate that they have not received formalised structured education on best practice in diagnosis and management of venous thromboembolic diseases in line with the recently published NICE Clinical Guideline 144 and NICE Quality Standard 29.

78 per cent of GPs indicated that they are confident when managing patients on extended thromboprophylaxis once they have been transferred into primary care. However, **77 per cent** of GPs would welcome or feel that they require further training in this area.

SECONDARY CARE

8 out of 10 NHS Trusts in England indicated that they have a written protocol in place for the management of venous thromboembolic diseases in accordance with NICE Clinical Guideline 144.

While they have been in existence for only a short time, **72 per cent** of CCGs indicated that they do not undertake regular audit of local providers' compliance with NICE Clinical Guideline 144. Furthermore, almost no CCGs undertake regular audits of local providers' delivery of the quality statements included in NICE Quality Standard 29.

As yet, **8 out of 10** CCGs have not commissioned any formalised structured education in best practice in VTE management for healthcare providers in their areas in line with NICE Clinical Guideline 144 and NICE Quality Standard 29.

PRIMARY CARE

As part of its research, the APPTG carried out a survey of 818 GPs in England. The GPs were representative of all NHS regions and both rural and urban environments. This anonymous survey aimed to ascertain the degree of GPs' awareness of what constitutes best practice in correctly diagnosing DVT and managing patients who have been discharged from hospital on extended thromboprophylaxis. We also asked the GPs whether they have received any formalised structured education in diagnosis and management of venous thromboembolic diseases in line with the recently published NICE Clinical Guideline 144 and NICE Quality Standard 29.

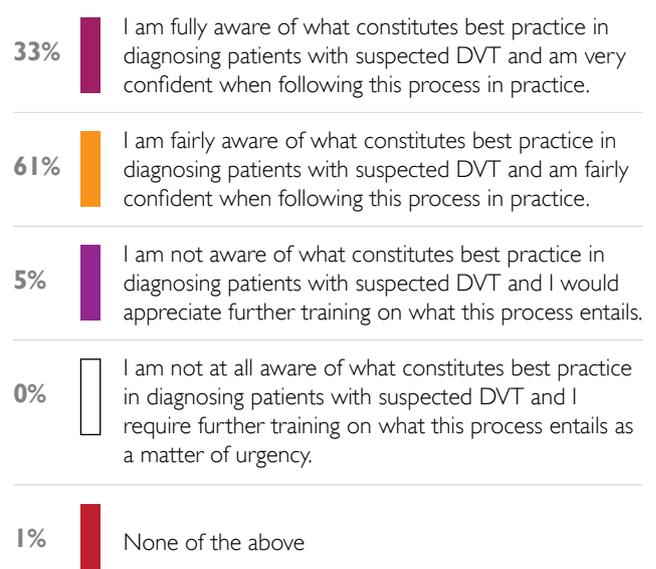
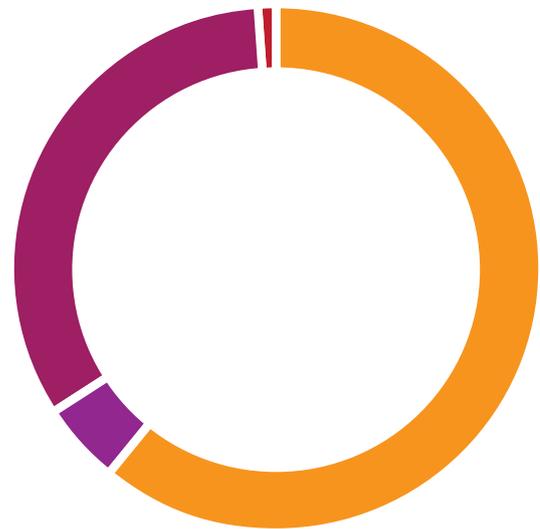
a) Diagnosis

Given that DVT manifests itself with similar symptoms to several other conditions, its clinical diagnosis is not always straightforward. Nevertheless, early recognition of DVT and initiation of appropriate treatment have the potential to significantly improve patient outcomes. Failure to diagnose DVT correctly may result in a patient not receiving optimal treatment and suffer a fatal PE. DVT has a mortality rate of 30 per cent if left untreated.

When asked about their knowledge of the process of diagnosing suspected DVT and the degree of their confidence in following it, only one third of GPs indicated that they were fully aware of what constitutes best practice in diagnosing DVT and were very confident when following it in practice. 61 per cent of GPs indicated that they were fairly aware of best practice and were fairly confident when following it in practice. 1 in 20 GPs indicated that they were not aware of what constitutes best practice in diagnosing patients with suspected DVT and would appreciate further training on what this process entails.

Diagnosing suspected DVT

Survey question: Which of the following statements would best describe your knowledge of the process of diagnosing suspected deep vein thrombosis (DVT) and your degree of confidence when following it?



PRIMARY CARE

b) Extended thromboprophylaxis

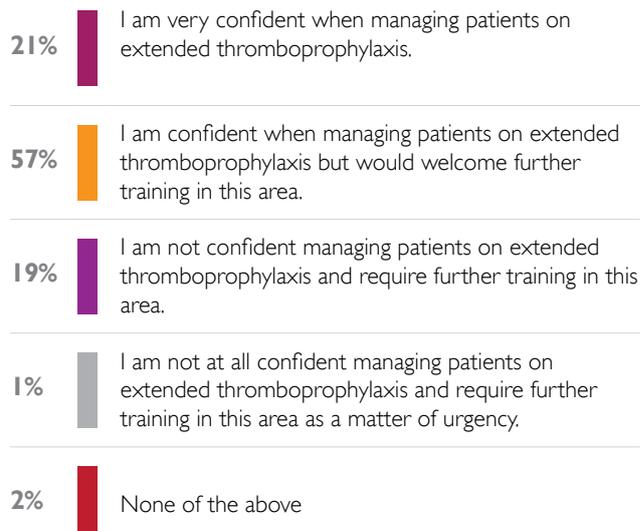
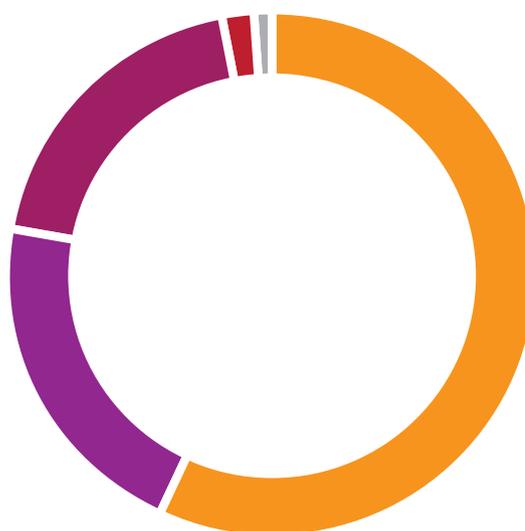
Following their hospitalisation, certain subgroups of patients may be deemed at particularly high risk of VTE and discharged from hospital on extended thromboprophylaxis. Anecdotal evidence suggests that information about the requirements of patients on extended thromboprophylaxis might not always be clearly communicated to primary care staff, and patients receiving this treatment may be sub-optimally managed upon their return into the community. It may also be the case that no single primary care clinician assumes the responsibility for the management of extended thromboprophylaxis and the patient's treatment may be inadequately managed as a result.

When questioned about their level of confidence in managing patients on extended thromboprophylaxis once they have been discharged from hospital, 21 per cent of GPs indicated that they felt very confident when managing these patients and 57 per cent were said to be fairly confident. Worryingly, 1 in 5 GPs indicated that they were not confident in managing patients on extended thromboprophylaxis. Overall, 77 per cent of GPs indicated that that they would either welcome or require further training in this area.

The APPTG believes that there needs to be a robust system in place that would ensure that primary care clinicians and district nurses are notified when a patient is discharged from hospital on extended thromboprophylaxis, allowing for effective management and support for these patients.

Management of patients on extended thromboprophylaxis

Survey question: Which of the following statements would best describe your degree of confidence when managing patients on extended thromboprophylaxis once they have been transferred into primary care?



PRIMARY CARE

c) Professional education in primary care

The last two years saw the introduction of two significant pieces of guidance for healthcare professionals charged with the delivery of VTE management in the NHS. In June 2012, NICE issued Clinical Guideline 144 which was followed by the publication of NICE Quality Standard 29. In addition to the newly published NICE recommendations on VTE management, several new anticoagulation treatments have also been approved by NICE.

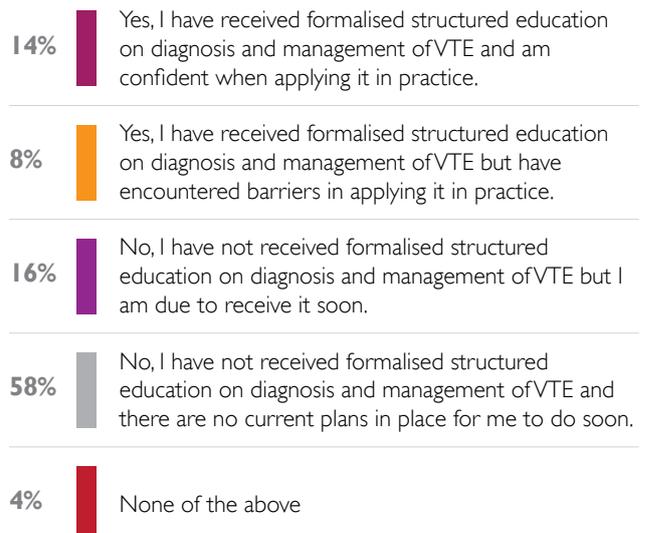
Given the number of recent changes in the VTE management landscape, the APPTG believes that primary care professionals could benefit from receiving formalised structured education on best practice in the diagnosis and management of VTE in line with the recently published NICE Clinical Guideline 144 and NICE Quality Standard 29.

Our call for more professional education in VTE management is supported by the fact that there appears to be an educational gap in the clinical community relating to this field. When responding to our survey, 74 per cent of GPs indicated that they have not received any formalised structured education in this area. 16 per cent of them suggested that they were to receive such education soon; however, 58 per cent indicated that there were currently no plans for them to do so.

The APPTG would urge healthcare commissioners to work together with Health Education England and the Royal College of GPs to deliver formalised structured education to GPs on best practice in diagnosis and management of VTE as a matter of urgency. The continuing professional development initiatives in this area could take the form of workshops, lectures or e-learning modules and should be made available as soon as possible to reflect the high demand for professional education in this field.

Professional education in primary care

Survey question: Have you received any formalised structured education on best practice in diagnosis and management of venous thromboembolic diseases in line with the recently published NICE Clinical Guideline 144 and NICE Quality Standard 29?



PRIMARY CARE

d) Patient information

It is recognised that patients' involvement in decision-making and their overall experience of care is essential in the delivery of high quality service. The treatment and care for people affected by VTE, or at risk of developing it, should take into account patients' needs and preferences. Primary care professionals are well positioned to disseminate patient information on the risk of VTE associated with admission to hospital, as well as to involve them in decisions about their treatment.

Whenever possible, verbal communication between practice staff and the patient should be supplemented by the provision of easy-to-interpret evidence-based written information. Through the provision of patient information, primary professionals can raise awareness of the increased risk of VTE associated with admission to hospital and empower the patient to ask for VTE risk assessment on admission, should one not be provided automatically. If appropriate, and if it does not create undue burden on clinician's time, they may choose to undertake pre-assessment of VTE risk prior to elective admissions of patients.

Dissemination of patient information will also contribute towards raising public awareness of hospital-acquired VTE in general. Lifeblood's polling of the general public continues to demonstrate that awareness of hospital-acquired VTE remains poor in comparison to DVT associated with long-haul flights.

While the benefit of greater dissemination of patient information in primary care is clear, the evidence is limited on what and how much patient information is currently distributed.

SECONDARY CARE

As part of the broader NHS restructure earlier this year, CCGs assumed the responsibility for commissioning secondary care services. Since effective VTE management relies heavily on the work of secondary care clinicians in our hospitals, the APPTG carried out a survey of all of the newly established CCGs under the provisions of the Freedom of Information Act 2000. We have questioned the CCGs about their practices in monitoring their healthcare providers' implementation of the recommendations included in NICE Clinical Guideline 144 and NICE Quality Standard 29, and about the commissioning of professional education for local secondary care clinicians. Having received responses from 156 out of the 211 CCGs (response rate of 74 per cent), we are confident that our findings are representative of the national picture.

a) NICE Compliance Audit i) NICE Clinical Guideline 144

The publication of NICE Clinical Guideline 144 was a major step towards improving services for patients affected by VTE throughout the NHS. The guideline offers guidance on the management of VTE, investigations for cancer in patients with VTE and thrombophilia testing. It also includes advice on the Wells score, D-dimer measurement, ultrasound and radiological imaging.

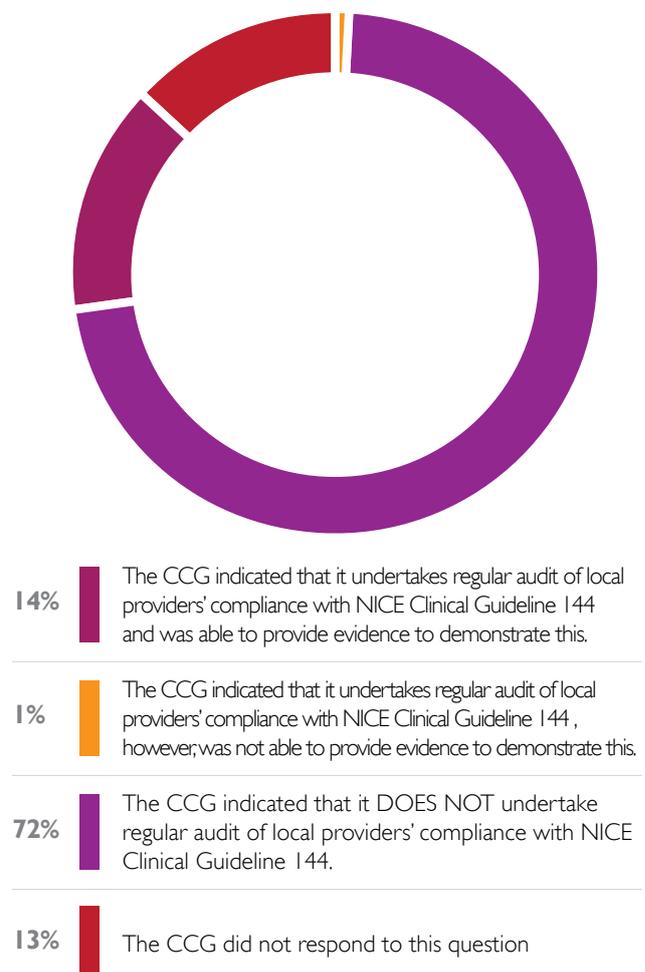
However, in the past the APPTG found that despite guidance on VTE prevention being in place, its implementation might not be universal in practice. Commissioners in the new NHS need to satisfy themselves that compliance with NICE guidance is incorporated into their contracts with healthcare providers. There should also be a mechanism in place through which the CCGs are able to monitor their providers' compliance with NICE recommendations.

Research undertaken by Lifeblood: The Thrombosis Charity suggests that 8 out of 10 NHS Trusts in England already have in place a written protocol for the management of VTE diseases in accordance with NICE Clinical Guideline 144. The APPTG recognises that having a written policy in place is instrumental in delivering care in line with NICE guidance and would encourage a universal roll-out of this practice.

In response to the APPTG questionnaire, only 15 per cent of CCGs indicated that they currently undertake regular audits of local providers' compliance with NICE Clinical Guideline 144. 72 per cent suggested that they do not undertake such audits.

The APPTG acknowledges that the CCGs are very young organisations and their operational systems and processes might still be in development. This fact will certainly account for many of the CCGs' failure to monitor their providers' compliance with NICE recommendations, and the APPTG would expect the proportion of CCGs engaging in this practice to increase with time.

Audit of providers' compliance with NICE Clinical Guideline 144



SECONDARY CARE

ii) NICE Quality Standard 29

NICE Quality Standard for diagnosis and management of VTE disease was published in March 2013. It covers the diagnosis and treatment of VTE diseases and consists of a prioritised set of specific, concise and measurable statements describing high quality care.

The Health and Social Care Act 2012 sets out a clear expectation that the care system should consider NICE Quality Standards in planning and delivering services, as part of a general duty to secure continuous improvement in quality.

Commissioners and providers of health should therefore cross refer across the library of NICE Quality Standards when designing high quality services.

Our survey of CCGs found that almost no CCGs undertake regular audits of local providers' delivery of the quality statements included in NICE Quality Standard 29.

NICE QUALITY STANDARD 29

Quality standard for diagnosis and management of venous thromboembolic diseases

Statement 1	People with suspected deep vein thrombosis are offered an interim therapeutic dose of anticoagulation therapy if diagnostic investigations are expected to take longer than 4 hours from the time of first clinical suspicion.
Statement 2	People with suspected deep vein thrombosis have all diagnostic investigations completed within 24 hours of first clinical suspicion.
Statement 3	People with suspected pulmonary embolism are offered an interim therapeutic dose of anticoagulation therapy if diagnostic investigations are expected to take longer than 1 hour from the time of first clinical suspicion.
Statement 4	People with proximal deep vein thrombosis are offered below-knee graduated compression stockings within 3 weeks of diagnosis.
Statement 5	People with unprovoked deep vein thrombosis or pulmonary embolism who are not already known to have cancer are offered timely investigations for cancer.
Statement 6	People with provoked deep vein thrombosis or pulmonary embolism are not offered testing for thrombophilia.
Statement 7	People with active cancer and confirmed proximal deep vein thrombosis or pulmonary embolism are offered anticoagulation therapy.
Statement 8	People without cancer who receive anticoagulation therapy have a review within 3 months of diagnosis of confirmed proximal deep vein thrombosis or pulmonary embolism to discuss the risks and benefits of continuing anticoagulation therapy.
Statement 9	People with active cancer who receive anticoagulation therapy have a review within 6 months of confirmed proximal deep vein thrombosis or pulmonary embolism to discuss the risks and benefits of continuing anticoagulation therapy.

SECONDARY CARE

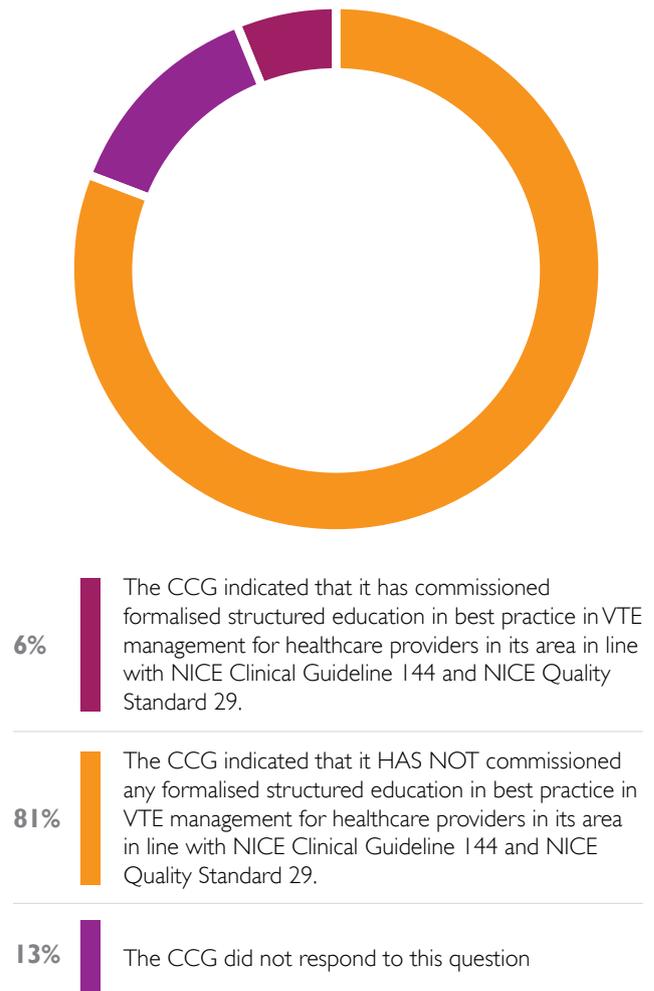
b) Professional education in secondary care

The VTE management landscape has recently been transformed through the introduction of new NICE guidance and new NICE-approved anticoagulation treatments. In view of these changes, our GP survey indicated that there is an urgent need for delivery of formalised structured education in primary care on the current best practice in VTE management. It is likely that the need for professional training will also be echoed in secondary care.

While acknowledging that the CCGs are new organisations and have not had a chance to fully roll out their commissioning plans, the APPTG notes that only 6 per cent of CCGs that responded to our survey indicated that they commissioned formalised structured education in best practice in VTE management for healthcare providers in their areas in line with NICE Clinical Guideline 144 and NICE Quality Standard 29. 8 out of 10 CCGs have not yet commissioned such training.

Given that the high demand for further training in VTE management from primary care professionals is likely to be mirrored in the secondary care setting, the APPTG would encourage CCGs to work with Health Education England and the relevant royal colleges to make professional education in VTE management available in secondary care settings. We recognise that the responsibility for the delivery of professional education also lies with the providers themselves and we would encourage them to communicate the demand for continuing professional development initiatives from their staff to the commissioners, and work with them to make professional education in VTE management widely available.

Professional education in secondary care



CONCLUSION

VTE prevention has been identified as a national clinical priority and continues to represent the most important safety practice in our hospitals. However, despite major strides made by the National VTE Prevention Programme towards embedding VTE prevention into NHS systems and processes, not all cases of VTE can be avoided. VTE events which manifest themselves without prior hospitalisation can be particularly difficult to prevent. It is therefore important that healthcare professionals across primary and secondary care are aware of what constitutes best practice in VTE management and are able to implement it on the ground.

Through its research into management of VTE in primary care, the APPTG found that only one third of GPs in England would say that they are fully aware of what constitutes best practice in diagnosing patients with suspected DVT and are very confident when following this process in practice. It was also established that about three quarters of GPs have not yet received formalised structured education on best practice in the diagnosis and management of VTE in line with the recently published NICE Clinical Guideline 144 and NICE Quality Standard 29. While 78 per cent of GPs are confident when managing patients on extended thromboprophylaxis once they have been transferred into primary care, 77 per cent of GPs would welcome or feel that they require further training in this area.

Given the strong demand for professional education amongst primary care professionals, the APPTG calls on healthcare commissioners to work together with Health Education England and the Royal College of GPs to deliver formalised structured education to GPs on best practice in the diagnosis and management of VTE as a matter of urgency.

While it was found that 8 out of 10 NHS Trusts in England have a written protocol in place for the management of VTE in accordance with NICE Clinical Guideline 144, 72 per cent of clinical commissioning groups do not undertake regular audits of local providers' compliance with NICE Clinical Guideline 144. Furthermore, 8 out of 10 clinical commissioning groups have not yet commissioned any formalised structured education for healthcare providers in their areas in line with NICE Clinical Guideline 144 and NICE Quality Standard 29.

Given the number of changes that have recently taken place in the VTE management space, the APPTG would encourage CCGs to work with Health Education England and the relevant royal colleges to make professional education in VTE management available in secondary care settings.

The APPTG recognises that clinical commissioning organisations are new organisations and their systems and internal processes might not be fully set up. However, they may consider putting in place mechanisms which would enable them to monitor their providers' compliance with NICE recommendations as set out by NICE Clinical Guideline 144 and NICE Quality Standard 29.

FURTHER INFORMATION

All-Party Parliamentary Thrombosis Group:

<http://apptg.org.uk/>

Lifeblood: The Thrombosis Charity

<http://www.thrombosis-charity.org.uk/>

National VTE Prevention Programme:

<http://www.vteprevention-nhsengland.org.uk/>

NICE Clinical Guideline 144: Venous thromboembolic diseases: the management of venous thromboembolic diseases and the role of thrombophilia testing

<http://www.nice.org.uk/cg144>

NICE Quality Standard 29: Diagnosis and management of venous thromboembolism

<http://www.nice.org.uk/QS29>

NICE Commissioning Guide: Support for commissioning anticoagulation therapy

<http://publications.nice.org.uk/support-for-commissioning-anticoagulation-therapy-cmg49>

ABOUT THE APPTG AND CONTACT DETAILS

The All-Party Parliamentary Thrombosis Group (APPTG) was set up in 2006 to promote awareness amongst parliamentarians about the risk and management of VTE; to increase knowledge of its causes, effects, treatments; and to monitor the implementation of government initiatives and other research being undertaken. Since then the APPTG has campaigned and provided active thought leadership on VTE prevention, undertaking wide-ranging research and hosting national events to support and share best practice in VTE prevention. In this role, the APPTG has been termed a 'critical friend' by the Department of Health. We remain committed to this spirit of partnership as the Department of Health and the National VTE Prevention Programme seek to secure a legacy of best practice in VTE prevention in the new NHS.

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