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 a pulmonary embolism (PE). 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. At least two thirds of cases of hospital-associated thrombosis are preventable through VTE risk assessment and the administration of appropriate thromboprophylaxis.
CHAIR’S FOREWORD

Dear Colleague,

As the Chair of the All-Party Parliamentary Thrombosis Group (APPTG), I am delighted to launch this report into the current standards for prevention and management of VTE within care homes in England.

Our health system is evolving to cope with the challenges of an ageing population and capacity pressures on secondary care. The NHS Five Year Forward View set out clear goals to adapt to these challenges, with a renewed focus on preventing avoidable hospital admissions and new models of care.

Integration is the key theme of the direction of change, with ambitions of moving towards a combined health and social care system. This will allow more care to be delivered outside of hospitals and be better tailored to individual patients’ needs. As such, many of the traditional boundaries between health and social care and primary and secondary care are dissolving.

NHS England is already recognised as a world leader in the prevention and management of VTE in hospitals. As we move towards an integrated health and social care system, it is vital that VTE best practice standards are strongly established and followed throughout the system so that patients receiving care outside of the hospital setting are not at unnecessary risk of preventable blood clots.

This will require strong communication on VTE risk between secondary and community care providers, and close cooperation between the NHS and social care providers. This report examines the extent to which this is happening for residents of nursing care homes who may be at risk of a blood clot. The APPTG’s research has found evidence of good practice in a number of CCG areas, as well as some general areas of improvement for England.

I hope you find this report informative and that it may guide improvements in VTE prevention and management within an integrated health and social care system.

Andrew Gwynne MP
Chair, All-Party Parliamentary Thrombosis Group
SUMMARY OF FINDINGS

Nearly 10% of CCGs surveyed indicated that hospital discharge summaries serve as the local guidance for transfer of care between hospitals and nursing care homes, yet only around a quarter of NHS Trusts surveyed indicated that a patient’s VTE risk status is displayed in their discharge summary.

None of the CCGs surveyed provide their own guidance on VTE prevention and management to nursing care home staff.

Only 8% of the CCGs surveyed indicated that there is a special or enhanced VTE diagnosis and treatment pathway for care home residents in their area.

Only two CCGs indicated that anticoagulation or VTE specialist nurses are employed to provide support within local care homes.

Over 1/5 of CCGs surveyed indicated that management of recurrent VTE in care home residents is handled within the community setting.
INTRODUCTION

There is a growing body of international evidence suggesting that care home residents are at an increased risk of VTE. A US study which examined the records of 18,661 nursing home residents from July 1997 to July 1998 concluded that nursing home stay or other chronic care facility stay and hospitalisation is associated with an 8-fold increased risk of developing VTE.¹ Other studies from the US and Israel have estimated an incidence of VTE in care home residents at between 1.2 and 1.58 per 100 patient years.²³

It is logical that there would be a higher incidence of VTE amongst care home residents compared to the general population, as care home residents - particularly the elderly and less mobile - have a similar risk profile to hospital in-patients. Previous APPTG research has suggested that there may be a higher risk amongst this group compared to the general population. The APPTG’s 2015 Annual Survey of hospital trusts in England found that, on average, 4% of patients admitted to hospital for VTE in 2014/15 were residents of elderly care homes. In one area, the proportion was as high as 14% of VTE admissions. Considering that care home residents only comprise approximately 0.5% of the population of England and Wales, the share of VTE admissions for care home residents was disproportionately high.

These findings prompted the APPTG to investigate what current standards are in place across the country for the prevention and management of VTE in care homes. Further academic studies are needed to clinically establish the extent to which care home residents in England are at an increased risk of preventable blood clots, and what the appropriate threshold for thromboprophylaxis should be. However, management of that risk will require strong communication and collaboration between the NHS and social care providers. Clinical Commissioning Groups (CCGs) have a statutory duty to promote integration to improve the quality of health services and reduce inequalities in outcomes. As such, they are ideally placed to lead collaboration between health and social care on VTE prevention and management in care homes.

To find out more about the current standards in place, the APPTG sent Freedom of Information requests to all CCGs in England. Our questions sought information on the transfer of care from the hospital to care home setting, the VTE guidance and support given to care homes, and the local referral and treatment pathways for VTE occurring in care homes.

From the answers received, the APPTG has identified a number of examples of good practice for other local areas to emulate, as well as some general areas for improvement across the country. With a response rate of approximately 60% of CCGs, we are confident that this report represents an accurate picture of the situation across England.

a) VTE risk on discharge summaries

It is vital that hospital patients at risk of a blood clot are clearly flagged to those responsible for their care post discharge, whether or not they are care home residents. This is particularly important as the risk of hospital-associated thrombosis (HAT) remains up to 90 days after discharge, and VTE has a tendency to recur.

The APPTG sent follow-up questions on how VTE risk is displayed on discharge summaries to the 71 Trusts that provided information on admissions for VTE in the APPTG’s 2015 Annual Survey. Only 19 of these Trusts (27%) were able to indicate that a patient’s VTE risk is displayed on their discharge summary. Of these 19, only 9 indicated that there is a standardised format for displaying VTE risk.

For example, Harrogate and District NHS Foundation Trust’s discharge letters include a mandatory section entitled “VTE Risk - Information for GP”, and the following template paragraph is provided for inclusion in individual letters: “Please be aware that all admissions to hospital may be associated with an increased risk of VTE even after discharge. Information on signs and symptoms of deep vein thrombosis and pulmonary embolism has been given to the patient prior to discharge and the patient advised to seek medical help if they are worried about adverse events, deep vein thrombosis or pulmonary embolism.” Also of note was Oxford University Hospitals NHS Trust, where adult patients’ ‘to take out’ (TTO) packs include a patient ‘clot alert’ business card.

Furthermore, of the Trusts surveyed, 51 indicated that a proportion of patients admitted for VTE had a previous hospital stay up to 90 days previously. Only 11 (22%) of these Trusts indicated that a patients’ VTE risk status is generally displayed on the discharge summary.
b) Local guidance for transfer of care from hospitals to nursing care homes

The findings regarding VTE risk on discharge summaries are particularly concerning when considered alongside the provision of guidance for the transfer of care to nursing care homes. The majority of CCGs surveyed by the APPTG were either unable to indicate what local guidance is provided for transfer of care from hospitals to nursing care homes, or stated there is no guidance or protocol in place. Just over 8% of responding CCGs indicated that the hospital discharge summary is relied upon for transfer of care guidance. This suggests that in many areas, patients potentially at risk of a blood clot may be transferred to a care home without clear guidance on how to manage this risk.

Approximately 9% of responding CCGs indicated that there is a local transfer of care guidance or protocol in place developed by either the hospital, the CCG or the local authority. Other CCGs indicated that this is either an area currently in development, or that there are structures rather than guidance in place to ensure smooth transfer of care. In Bromley, for example, the CCG has developed a Transfer of Care Bureau with the local hospital which coordinates discharge, assessments and medicines between secondary, primary and social care representatives.
Patient information is a key necessity for effective VTE prevention and management. If patients are aware of their risk of a clot and the steps to take should a clot be suspected, the potential harm of VTE can be reduced. Given that the specific risk of VTE in the care home setting is the subject of ongoing research, the APPTG did not expect that tailored information for this setting exists in most areas. Indeed, nearly 70% of the responding CCGs indicated that they were unaware of whether such information was provided.

Nearly 2% of CCGs indicated that hospital discharge notices are relied upon to provide this information, again highlighting the importance for VTE risk to be clearly displayed on discharge notices. An additional 2.46% of CCGs indicated that secondary care providers are responsible for providing this information. Almost 10% of CCGs indicated that this information is provided by primary care, usually through the GP aligned to the care home.
a) VTE guidance for care homes

There is clear national guidance in place to support hospitals in managing the risk of VTE in patients. These include *NICE Clinical Guideline 92 - Reducing the risk of VTE in patients admitted to hospital, and NICE Quality Standard 3 – VTE prevention*. However, there is not yet equivalent national guidance on VTE specific to the care home setting. Guidance for care homes varies across different local areas.

We asked CCGs what guidance they provide to nursing care home staff on the prevention and management of VTE. As care homes are run by a range of different providers, many have developed their own policies and procedures, and in most areas, there appears to be little standardisation of local VTE guidance provided to care homes. None of the CCGs that responded to our request indicated that they provide their own guidance on VTE, though some CCGs indicated that they have developed more general care pathway guidance for care homes. The overwhelming majority (81.97%) either did not hold this information or said that no guidance is provided. The rest indicated that care homes in their area are expected to follow guidance on VTE from a variety of other sources, as detailed in the following graph:

**VTE prevention and management guidance for nursing care home staff**

- **No guidance provided or information not held**: 81.97%
- **Expected to follow national guidance**: 6.56%
- **Expected to follow guidance developed by local hospital trusts**: 4.1%
- **Expected to follow guidance developed within the care home**: 3.28%
- **Other source of guidance**: 1.64%
- **Expected to follow guidance developed by primary care**: 2.46%
6.56% of CCGs indicated that their local care homes are expected to follow national guidance on VTE. NICE clinical guidance and NHS England’s Commissioning Services that deliver High Quality VTE Prevention in particular were cited. In some areas, such as NHS West London CCG, adherence to national guidance is checked through quality monitoring processes in place with nursing care home providers. However, as previously mentioned, there is not currently national guidance on VTE prevention and management specific to the care home setting.

Approximately 7.38% of CCGs indicated that care homes are expected to follow VTE guidance from either local primary care or secondary care. Of particular note was Dudley CCG, which indicated that the Dudley Group NHS Foundation Trust provides mandatory VTE training.

b) Specialist nurse support

VTE and anticoagulation specialist nurses play an indispensable role in both the prevention and management of VTE. We asked CCGs whether there are VTE or anticoagulation specialist nurses employed to provide support to care homes. Only two CCGs indicated that this specialist support is provided.

Walsall CCG indicated that nine clinical specialist nurses support care homes in devising specific management plans for VTE and anticoagulation. This is part of an integrated health care model for care homes that the CCG developed in partnership with Walsall Healthcare NHS Trust to reduce hospital admissions. As part of this model a GP, pharmacist, case manager and a nurse each visit their aligned care home weekly to undertake proactive ward rounds. The team holistically assess the risk of potentially developing VTE against the risk of commencing anticoagulation therapy in residents with frailty and polypharmacy.

Dudley CCG responded that the Dudley Group Foundation Trust, which provides mandatory VTE training, have an anticoagulation specialist nurse working within its Care Home Nurse Practitioner service. The service was set up with the aim of identifying care home residents at risk of hospital admission and supporting care home staff to manage them and reduce the need for unscheduled hospital visits. It carries out routine visits to care homes to review all patients registered with a Dudley GP, providing clinical intervention on individuals if appropriate or sign-posting to specialist clinicians where necessary.

While other CCGs indicated that their local NHS has support structures in place for care homes, including nurse-led care home support teams or local enhanced services linking GP practices to care homes, they were unable to indicate whether this support included access to VTE or anticoagulation specialists or covered VTE prevention and management.
LOCAL REFERRAL AND TREATMENT PATHWAY FOR VTE IN CARE HOMES

a) Referral and treatment pathway

It is important that patients with a suspected DVT or PE are able to be diagnosed and put onto treatment as swiftly as possible. We asked CCGs to describe the local referral and treatment pathway for occurrences of VTE in their area’s nursing care homes. Approximately half (54.1%) of CCGs were unable to answer this question. Of the rest, most indicated that the local pathway for care home residents is no different than for general occurrences of VTE within the community. For most areas, the standard pathway is for patients to present to their GP, who then refers them to secondary care for testing to confirm VTE and initiate anticoagulation.

Of the CCGs which indicated that care home residents follow the standard local pathway, it is notable that roughly one in five have a local pathway in which either diagnosis of VTE or management of treatment is handled within the community rather than in secondary care. The APPTG has long encouraged such pathways as they help to relieve capacity pressures in hospitals and can facilitate more streamlined VTE diagnosis and treatment.

8.2% of CCGs indicated that there is a special or enhanced pathway in place for occurrences of VTE in nursing care homes. A notable example was Medway CCG, which commissions a DVT pathway through Medway Community Hospital (MCH) which is accessible to nursing home residents. Out of hours, patients in care homes are assessed by a home visiting Medway On Call GP. Patients who are immobile and require a scan are referred via the MCH Emergency Department. If a DVT is confirmed, the patient would be started on warfarin or rivaroxaban depending on the location of the clot. Patients with complex morbidities are referred to the medical team.
b) Management of recurrent VTE in nursing care homes

We asked CCGs what the established local procedure is for managing recurrent VTE in nursing care homes. Of the CCGs able to provide information to this question, it was again encouraging to see that in most areas recurrent VTE is managed within the community setting, usually through GP practices aligned to care homes. There is also much variation within CCG areas on established procedures, with over 7% of CCGs indicating that the procedure for recurrent VTE is determined by individual nursing care homes and providers. It is concerning though that just over 9% of CCGs indicated that there is no established procedure for managing recurrent VTE in nursing care homes. While there are still many unknowns around the specific risk of VTE in the care home setting in England, it is well known that VTE has a tendency to recur. As such, there should be clear established procedures for management of recurrence, particularly in settings where patients meet general VTE risk profiles.
The specific risk of VTE within care homes in England is not as well established as the risk within hospitals, and is the subject of ongoing research. As such, there is presently much variation in the standards and practices for VTE prevention and management in care homes across the country, and many CCGs are unaware of how this is handled in their areas. We encourage CCGs, and at a national level, the Care Quality Commission (CQC), to keep abreast of the academic research in this area and develop guidance and protocols for VTE prevention and management in care homes in line with the latest findings.

While there is a need for further research into the risk of VTE in care homes in England, the APPTG’s findings indicate that a number of more fundamental improvements are needed to ensure effective management of VTE in the community setting more widely. It is well known that hospital inpatients are at risk of a hospital-associated blood clot up to 90 days after discharge, and that VTE has a tendency to recur. As such, communication on VTE risk between secondary care and those responsible for a patient’s care in the community should already be clear, and procedures for managing recurrent VTE in the community should be well established. Our research indicates that this is not the standard for much of England.

As a first step for improvement, hospital discharge summaries should provide explicit information on a patient’s VTE risk status so that those managing their care in the community, as well as the patients themselves, are equipped to prevent avoidable clots. In many areas, the discharge summary is relied upon as the transfer of care guidance from secondary care to care homes and for this reason, the summary should be as clear as possible regarding VTE risk. In addition to the discharge summaries themselves, we encourage CCGs to work with secondary, primary and social care providers to develop local protocols or structures to facilitate smooth transfer of care between hospitals and care homes and clarify the procedures for managing patients’ VTE risk post-discharge.

As England moves towards an integrated health and social care system, the APPTG encourages CCGs to take the lead locally in ensuring that best practice standards in VTE prevention and management are upheld outside of the hospital setting, and that the local NHS is equipped to support care homes in managing the risk of their residents.

CONCLUSION

RECOMMENDATIONS

1. Further academic research should be conducted to clinically establish the extent to which care home residents in England are at an increased risk of preventable blood clots, and what the appropriate threshold for thromboprophylaxis should be.

2. The CQC should develop national guidance on prevention and management of VTE in the care home setting, closely informed by the latest academic research on the risk of VTE in care homes in England.

3. All hospitals should include a mandatory section on VTE risk in their discharge summaries, indicating instructions on the steps that should be taken to manage the patient’s risk.

4. CCGs should work with local secondary, primary and social care providers to develop local transfer of care protocols to facilitate smooth transfer of care between hospitals and care homes and clarify procedures for managing patients’ VTE risk post-discharge.

5. CCGs should develop community-based VTE treatment pathways for occurrences and recurrences of VTE in the care home setting to relieve capacity pressure on hospitals and ensure timely treatment.
FURTHER INFORMATION

All-Party Parliamentary Thrombosis Group: http://www.apptg.org.uk/
APPTG: VTE Scorecard http://www.vtescorecard.com/
National VTE Prevention Programme: https://www.england.nhs.uk/patientsafety/venous-thromb/
AntiCoagulation Europe http://www.anticoagulationeurope.org/
Thrombosis UK http://www.thrombosisuk.org/

NICE Clinical Guideline 92 – Reducing the risk of VTE in patients admitted to hospital http://guidance.nice.org.uk/CG92
NICE Clinical Guideline 144 – Venous thromboembolic diseases: the management of venous thromboembolic diseases and the role of thrombophilia testing http://guidance.nice.org.uk/CG144
NICE Quality Standard 29 - Diagnosis and management of venous thromboembolic diseases http://guidance.nice.org.uk/QS29

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