

PREVENTION OF HOSPITAL ASSOCIATED VENOUS THROMBOEMBOLISM IN PSYCHIATRIC INPATIENTS: A SURVEY OF CURRENT PRACTICE WITHIN MENTAL HEALTH TRUSTS IN ENGLAND

Dr. A. Mohamed¹, Dr. M. Cheah², Professor B. Hunt⁴, Dr J. Jenkinson³, J. Jerrome⁵ and A. Purcell⁶

1. Higher Specialist Trainee, Surrey and Borders Partnership NHS Foundation Trust Correspondence to ashma.mohamed@sabp.nhs.uk
2. Core Psychiatry Trainee, Surrey and Borders Partnership NHS Foundation Trust
3. Consultant Psychiatrist for Older People, Ashford and St Peter's Hospitals Psychiatric Liaison Service, Surrey and Borders Partnership NHS Foundation Trust
4. Professor of Thrombosis and Haemostasis, King's College London
5. Chief Executive Officer, Thrombosis UK
6. Chief 2 Pharmacist, Saint John of God Hospital, Dublin

BACKGROUND

- Venous thromboembolism (VTE), is a disorder that includes deep vein thrombosis (DVT), and pulmonary embolism (PE). DVTs usually form in the deep veins of the legs and pelvis, can become dislodged and travel through the circulatory system resulting in potentially fatal blockage of the pulmonary arteries (PE).
- 60% of all VTE cases occur during admission to hospital or for up to 90 days post discharge^{1, 2}. The terms hospital associated VTE and hospital-associated thrombosis (HAT) are used to describe VTE occurring during hospital admission and for up to 90 days post discharge.
- VTE is a multifactorial disorder, influenced by genetic, biological, and environmental factors. Immobilisation, inflammation, pregnancy, trauma, surgery, and active cancer all increase the risk of VTE. Increasing awareness of the risks faced by patients in general hospitals has been the focus of the National VTE Prevention Programme³ where inpatients are now routinely risk assessed for VTE.
- There has been less focus on VTE prevention in psychiatric inpatients, who may be at increased risk due to additional factors, such as reduced mobility due to sedation as a result of psychotropic medication, reduced mobilisation due to severe depression or catatonic symptoms, dehydration due to severe self-neglect, and the use of anti-psychotic medication which can increase the risk of thrombosis⁴.
- Previous NICE guidelines on VTE prevention did not specifically mention psychiatric inpatients⁵, and VTE prevention has previously received little attention in psychiatric services⁶. Despite an increasing body of evidence that patients with severe mental illness are at increased risk⁶ VTE risk assessment has not been embedded into psychiatric care⁷ and data on the incidence of HAT in psychiatric inpatients appears to be difficult to access via existing data reporting systems.
- More recently updated NICE guidelines on VTE prevention have sought to address this⁸, advising that all acute psychiatric inpatients should be assessed to identify VTE and bleeding risk on admission, using a risk assessment tool, and that all patients should be reassessed during their admission, with a view to prescribing appropriate pharmacological VTE prophylaxis if needed.
- The existing Department of Health VTE risk assessment tool⁹ does not include specific mention of factors relevant to psychiatric inpatients.
- The authors are a group of professionals with common interest on this issue who are working collaboratively to better understand current practice in order to improve VTE risk prevention for people receiving psychiatric treatment.

AIMS

- To understand to what degree mental health trusts in England have implemented VTE risk assessment in psychiatric inpatients, by means of policy development and adapted risk assessment tools.
- To explore whether mental health trusts were able to provide data on incidents of HAT.

METHOD

- A Freedom of Information Act (FOI) request was sent by email to all 71 mental health trusts in England.
- Trusts were asked a list of questions (Figure 1), including whether they had a VTE policy, whether a VTE risk assessment tool was being used, and the incidence of VTE in their psychiatric inpatients.
- Responses were collated and analysed manually.

1. Does the Trust have a venous thromboembolism (VTE) risk assessment policy for hospitalised psychiatric patients as indicated in the NICE guideline [NG89]?
2. If the Trust has a VTE Risk Assessment policy, please can you provide a copy of the Trust's policy that is used for hospitalised psychiatric patients as per NICE Guidance NG89: <https://www.nice.org.uk/guidance/ng89>
3. Does the Trust have a VTE Risk Assessment tool that is used when assessing VTE risk in hospitalised psychiatric patients?
4. If the Trust has a VTE risk assessment tool, please can you provide a copy of the VTE risk assessment tool that is used when assessing VTE risk in hospitalised psychiatric patients, as per NICE Guidance NG89: <https://www.nice.org.uk/guidance/ng89/chapter/Recommendations#risk-assessment>
5. Does the Trust have a policy for monitoring venous thromboembolism (VTE) events in hospitalised psychiatric patients and in psychiatric patients for up to 90 days post discharge?
6. If the Trust has a policy for monitoring venous thromboembolism (VTE) events in hospitalised psychiatric patients and in psychiatric patients for up to 90 days post discharge. Please can you provide a copy.
7. Please can you provide the number of VTE diagnosis in hospitalised psychiatric patients including those diagnosed with a VTE within 90 days of discharge between February 2016 – February 2021.

Figure 1: Freedom of Information (FOI) request questions

RESULTS

- 54 of the 71 (76%) mental health trusts contacted gave a response to the FOI request. Results are summarised in Figure 2.
- Of these 54 respondents, 36 (67%) shared their VTE policy. Of the VTE policies received, 26 (72%) had been adapted specifically for psychiatric inpatients (Figure 3)
- 38 of the 54 respondents (70%) shared their VTE risk assessment tool, of which 17 (45%) had been adapted from the Department of Health VTE risk assessment tool (Figure 4).
- Only five trusts out of 42 (12%) monitored VTE events up to 90 days post-discharge and four of these shared their monitoring policy.
- Only 18 (33%) were able to provide data on the number of psychiatric patients diagnosed with VTE during their stay, and up to 90 days post discharge between February 2016-2021. Six trusts (14%) said they would incur costs to collect this data and nine (21%) said they could not access this data.
- Overall, of the 54 trusts who responded, only two trusts (4%) had a VTE Policy and VTE Risk Assessment Tool adapted for psychiatric inpatients, and monitored VTE events up to 90 days post-discharge (Figure 5).

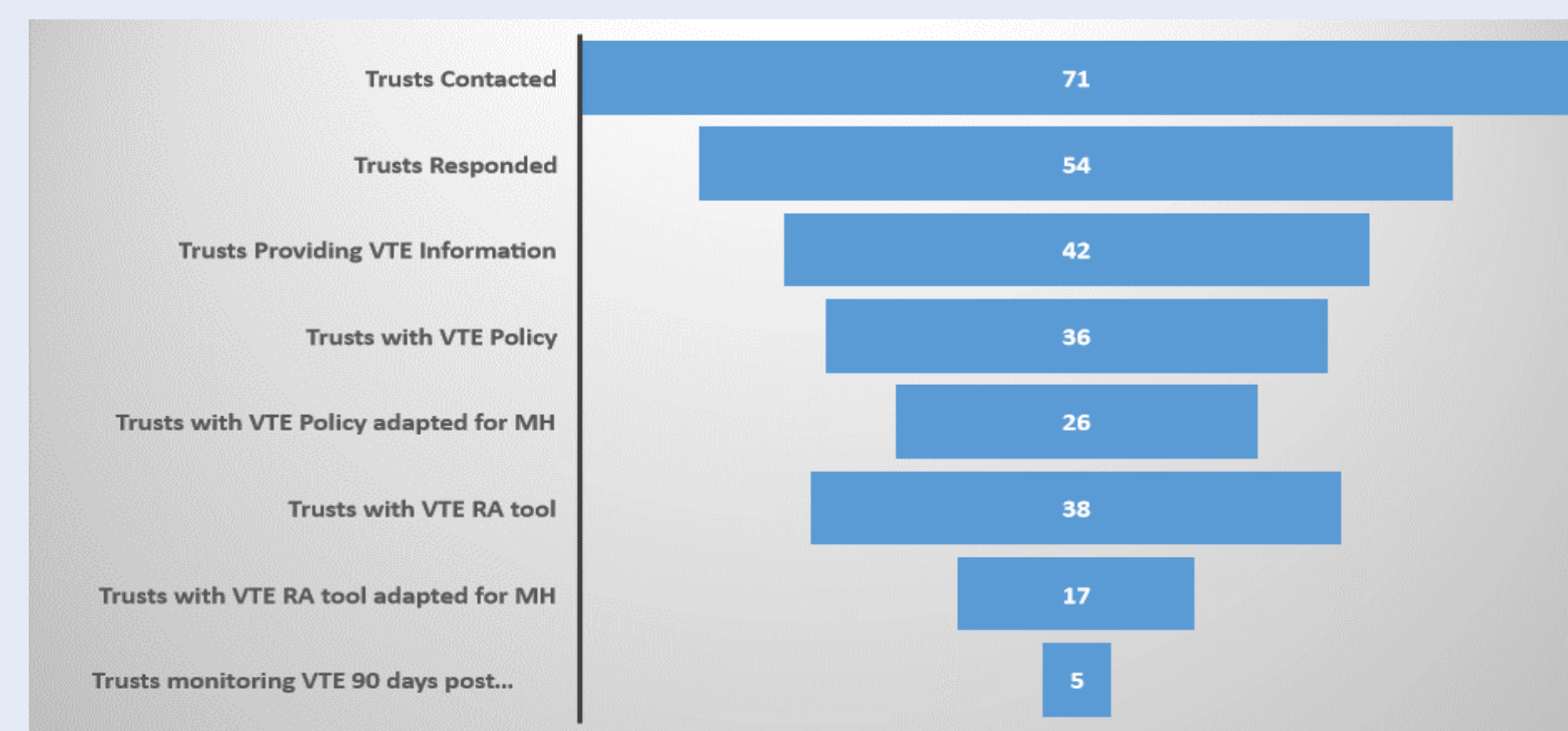


Figure 2: Summary of responses to FOI request

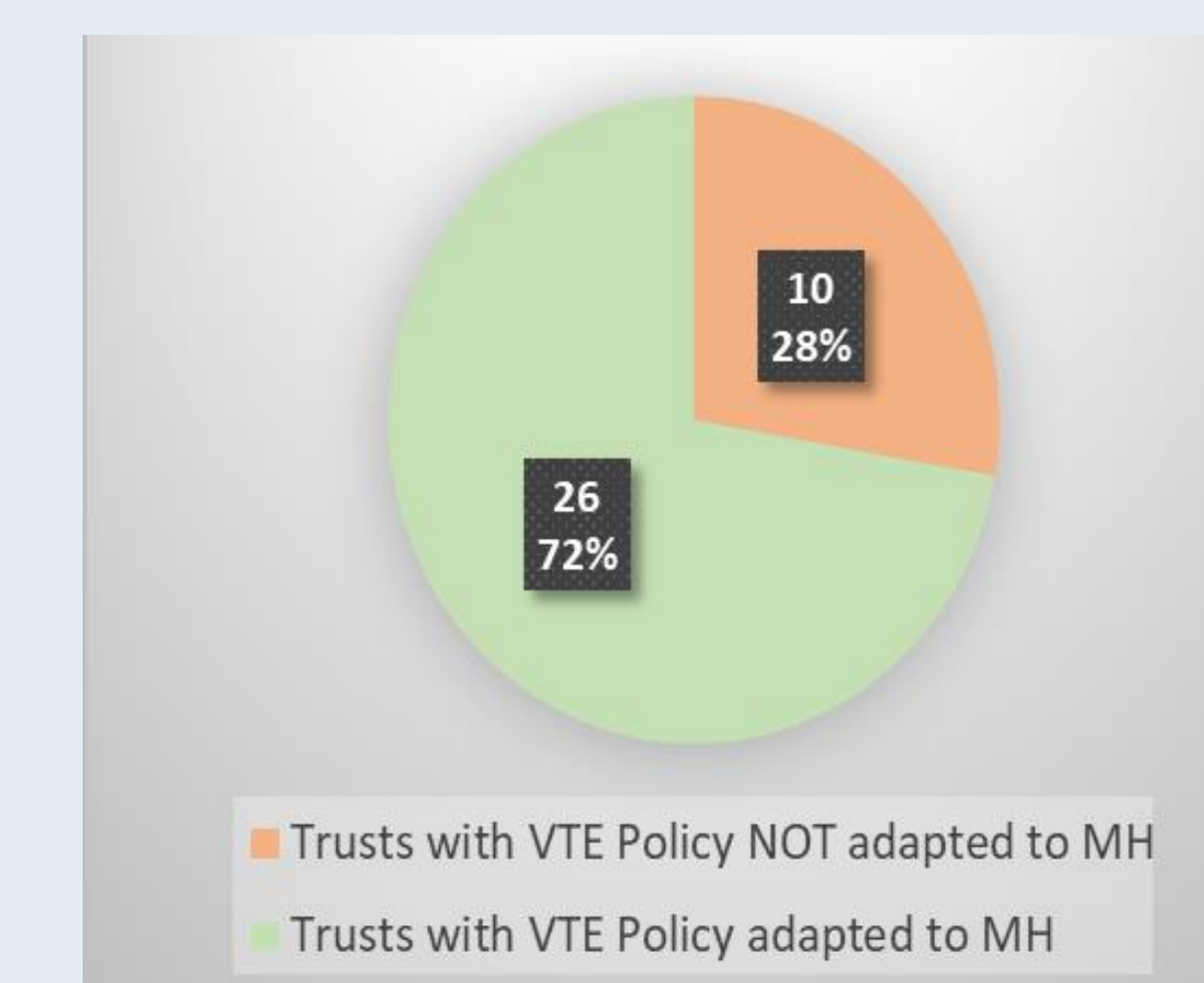


Figure 3: Number of FOI respondents with VTE policies adapted and not adapted to mental health (MH)

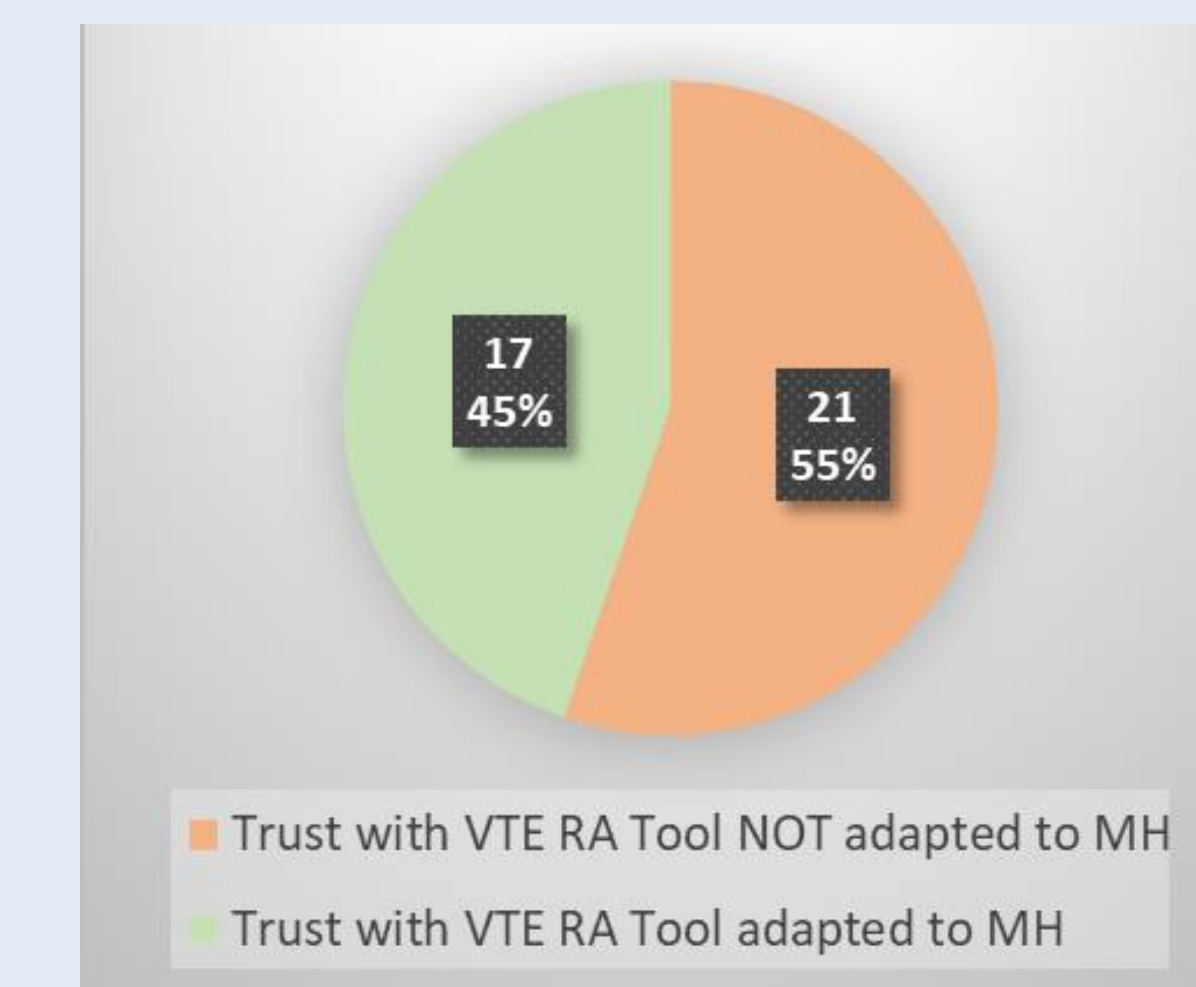
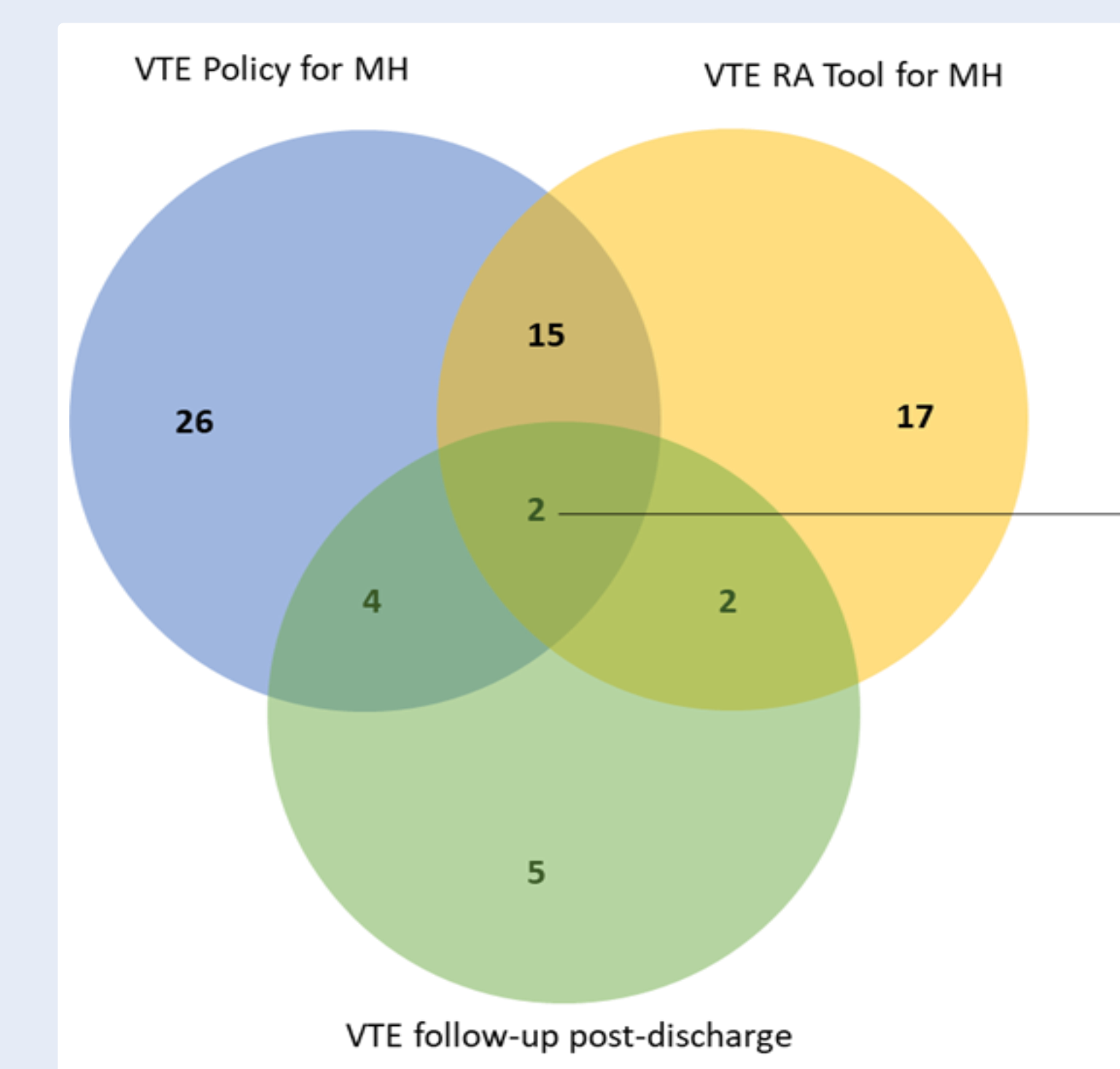


Figure 4: Number of FOI respondents with VTE risk assessment (RA) tool adapted and not adapted to mental health (MH)



only two trusts (4%) had a VTE Policy and VTE Risk Assessment Tool adapted for psychiatric inpatients, and monitored VTE events up to 90 days post-discharge

DISCUSSION AND NEXT STEPS

- This FOI had a fairly good response rate, with the majority of responding mental health trusts had VTE policies in place, possibly due to increased focus and awareness of this issue due to amended NICE guidelines, and a greater focus on physical health in psychiatric inpatients.
- However, there is wide variation in thromboprophylaxis practice in hospitalised psychiatric patients in England, and there are still trusts that we now know do not have a VTE policy in place, as well as the 17 trusts that did not respond to the FOI.
- Some trusts have adapted VTE risk assessment tools specific for psychiatric inpatients.
- Although some trusts are collecting data and have access to the incidence of HAT in psychiatric inpatients, it is concerning that there is general a lack of access of this data by many mental health trusts.
- This data would allow for monitoring of the effectiveness of VTE prevention policies as well as allowing for comparison with incidence within the general population and acute trust hospital inpatients.

Next steps include:

- Identification of examples of best practice from amongst respondents, and develop a national risk assessment tool adapted to support use in psychiatric inpatients which can be used by mental health trusts
- Support and/or conduct further research into the incidence of HAT in people receiving psychiatric care and how this is monitored using existing data linkage systems
- Support the development of education and training tools around the issue of VTE prevention in this group.

REFERENCES

1. Heit, J.A. The epidemiology of venous thromboembolism in the community. *Arterioscler Thromb Vasc Biol* 2008 28:370-2.
2. Thrombosis UK. Thrombosis Statistics. [ONLINE] Accessed 2nd June 2022 Available from: <https://thrombosisuk.org/thrombosis-statistics.php>
3. NHS England. National VTE Prevention Programme helping to save lives [ONLINE] June 2013 Available from: <https://www.england.nhs.uk/2013/06/vte-prog/#:~:text=The%20National%20VTE%20Prevention%20Programme,in%20line%20with%20national%20guidelines%20>
4. Jonsson, A.K., Schill, J., Olsson, H., Spigset, O., Hagg, S. (2018) Venous Thromboembolism During Treatment with Antipsychotics: A Review of Current Evidence *CNS Drugs* (2008) 32(1): 47–64.
5. National Institute of Care Excellence. Clinical Guideline [CG92] Venous Thromboembolism: reducing the risk for patients in hospital. 2010 NICE, UK
6. Royal College of Psychiatrists. Whole-person care: from rhetoric to reality Achieving parity between mental and physical health. *Occasional paper OP88 March 2013* – Available from: <https://core.ac.uk/download/pdf/34719468.pdf>
7. Ellis, N., Grubb, C.M., Mustoe, S., Watkins, E., Codling, D., Fitch, S., Stirland, L., Quraishy, M., Jenkinson, J. and Harrison, J. Venous thromboembolism risk in psychiatric in-patients: a multicentre cross-sectional study *BJPsych Bulletin* 2019 Vol 43 Issue 6
8. National Institute of Health and Care Excellence. Guideline [NG89] Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism. *March 2018*. Available from: <https://www.nice.org.uk/guidance/ng89/chapter/Recommendations#interventions-for-people-with-psychiatric-illness>
9. Department of Health. Risk assessment for Venous Thromboembolism [ONLINE] (2010). Available from: <https://www.nice.org.uk/guidance/ng89/resources/department-of-health-vte-risk-assessment-tool-pdf-4787149213>