

QUALITY AND SAFETY CHALLENGE 2012 FINAL PROJECT REPORT

Date:	30 June 2012
Project title:	NZ VTE Prevention Programme for Adult Hospitalised Patients
Project Description:	Establish and promote a National Venous Thromboembolism (VTE) Prevention Programme for hospitalised adult patients in New Zealand.
Contracted agency:	NZ VTE Prevention Steering Group
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What did you do?	<ul style="list-style-type: none"> • Compiled a structured National Policy Framework for District Health Boards (DHBs)/healthcare providers to use to plan and guide progress with preventing hospital-associated venous thromboembolism (VTE) in adult hospitalised patients. Included in this document are: <ul style="list-style-type: none"> ○ comprehensive clinical guidance materials on appropriate thromboprophylaxis for all hospitalised patients ○ data definitions/metrics to enable DHBs/healthcare providers to do pilot evaluations to understand the extent of the problem in their organisations and evaluate and track progress with VTE quality improvement ○ a range of VTE prevention-related resources developed by various DHBs. • Undertook broad consultation and ongoing engagement with key stakeholders to gain and maintain support for the initiative, and to obtain review of the document, feedback and suggestions. • Held a wrap-up meeting near the end of the six month period to provide key stakeholders an opportunity to get together to discuss and debate any issues, and suggest and reach consensus on any changes to the document.
Why did you undertake these activities?	<p>The risk of developing VTE increases tenfold in patients admitted to hospital versus non-hospitalised persons, with contributing factors being general ill health, malignancy, reduced mobility and poor fluid intake, as well as surgical procedures, particularly orthopaedic and other high-risk surgeries. ¹</p> <p>About 10% of all patients experiencing a pulmonary embolism (PE) will die as a result of their PE. ^{2,3} Morbidity from VTE for survivors and the resulting costs to the healthcare system can also be substantial. Approximately 30-50% of patients with deep vein thrombosis (DVT) will develop post-thrombotic syndrome (PTS), characterised by persistent lower limb oedema and pigmentation. ⁴ Severe PTS with lower limb ulceration occurs in 5-10% of cases, ⁵ and 2-4% of patients will suffer chronic pulmonary hypertension following a PE. ⁶</p> <p>A retrospective study in 2008 at a large NZ hospital showed that 106 patients were harmed by hospital-associated VTE in that year. In the same hospital, data collected prospectively over 12 months during 2010 and 2011 have shown that more than 150 patients per year develop hospital-associated VTE. ⁷ By extrapolation across the 20 DHBs in NZ, this could mean that in excess of 1,500 patients per year develop hospital-associated VTE in NZ. This figure is</p>

	<p>likely to be a good approximation if one takes into account the following: The incidence of VTE is about 1 per 1,000 of the population and the risk increases with age.⁸⁻¹⁰ This incidence predicts for a NZ VTE event rate of around 4,000 patients per year, which would be consistent with an estimated figure of about 1,200 to 1,500 events per year in the Auckland region, for an indicative one third of the population (Ockelford private communication). About 25-50% of VTE events are hospital-associated.¹¹ This therefore could predict for a hospital-associated VTE event rate of around 2,000 patients per year in NZ, with approximately one third of these episodes being PE. Assuming that 10% of PE are rapidly fatal,¹² approximately 60 patients (3%) per year will die as a result of hospital-associated VTE. This figure does not include mortality indirectly related to the VTE event, such as that related to bleeding on treatment-dose anticoagulation.</p> <p>VTE therefore represents a significant cost to the NZ healthcare system. One of the most significant determinants of cost is the downstream consequences of post-thrombotic syndrome and pulmonary hypertension. NZ data of costs are lacking; in Australia chronic venous insufficiency has been reported to cost the Australian Healthcare System \$200m annually,¹⁰ and each case of VTE has been reported as costing in excess of \$10,000.¹⁰</p> <p>VTE prevention in hospitalised patients is widely recognised internationally as a major opportunity to improve patient safety, having a strong evidence base for improvements in patient outcomes.¹³ In a broad range of patients, effective thromboprophylaxis can reduce the risk of DVT, proximal DVT, and fatal as well as non-fatal PE by more than 60%.¹⁴</p> <p>VTE prevention programmes incorporating multifaceted improvement strategies including audit and feedback, documentation and decision support aids, provider and patient education and policy development have been found to significantly improve the quality of VTE prophylaxis and rates of risk assessment in adult hospitalised patients.^{1,15} All hospitals therefore need to have a robust VTE prevention programme, and in order to be optimally effective, a systems-based approach should be taken to in-hospital VTE prevention, incorporating a whole of hospital approach and active multidisciplinary healthcare professional involvement.</p>
<p>What number of activities did you undertake</p>	<ul style="list-style-type: none"> • Developed a structured National Policy Framework in consultation with, and with review by the multidisciplinary membership of the NZ VTE Prevention Steering Group, key opinion leaders drawn from a range of clinical sub-specialities and Medical Colleges. • Held a wrap-up meeting to provide a forum for representatives from DHBs to further discuss and debate any issues pertaining to the draft National Policy Framework, to suggest changes and to reach consensus regarding any such changes.
<p>What was your baseline position?</p>	<p>No national approach is currently in place in NZ to reduce the incidence of hospital-associated VTE. Some DHBs already have VTE risk assessment tools, although compliance with use is variable.</p> <p>A National VTE Prevention Programme for NZ could be expected to reduce the incidence of hospital-acquired VTE in NZ and the associated morbidity and mortality.</p>

What were your key deliverables and milestone date?	Deliverable		Milestone date
	A structured National Policy Framework to plan and guide progress with preventing hospital-acquired VTE.		30/06/2012
	Comprehensive clinical guidance materials on appropriate prophylaxis for all hospitalised adult patients.		30/06/2012
	Data definitions that will enable DHBS/healthcare providers to understand the extent of the problem in their organisations, and that enable DHBs/healthcare providers to refer back to the VTE prevention working group for recommendations.		30/06/2012
What were your key outcomes from this project?	Developed a National Policy Framework for VTE prevention in adult hospitalised patients in NZ.		
Measurement and evaluation activities conducted	Activity		Date completed
	Extensive review and feedback by key opinion leaders, multidisciplinary healthcare professionals and Medical Colleges.		30 June 2012
	Wrap up meeting for additional discussion, debate, feedback and suggestions.		8 June 2012
What difference did you make?	Difference we saw		When we saw the difference
	The foundation document for VTE quality improvement in NZ has now been developed. The engagement with staff from the DHBs/healthcare providers to achieve this has promoted further interest and enthusiasm for the progression of VTE quality improvement in NZ.		A difference will only be shown once the National VTE Prevention Programme has been rolled-out across NZ and fully implemented.
What problems occurred?	Problem		Anticipated Yes/No?
	No problems occurred		N/A
Are there any things you would do differently?	Ensure that roll-out and implementation of the programme are included in the project plan.		
What are your recommendations out of this project for the longer term or for other health providers?	Full support is required for the project to transition to become a structured National VTE Prevention Programme, with the key metrics implemented and monitored by the individual DHBs/healthcare providers and nationally.		
If you could extend this project or do more in the future, what would you like to do next?	<ul style="list-style-type: none"> • Roll-out and fully implement the VTE prevention programme across NZ. • Provide ongoing education and support for programme implementation and the associated processes, including tracking of key metrics across the DHBs/healthcare provider organisations in NZ. • Maintain the National Policy Framework as a living document to ensure that the Framework is updated with current best evidence/best practice on an ongoing basis to maintain relevance. • Actively engage and collaborate with all DHBs/healthcare providers in further evolving VTE prevention guidance and resources. • Carry out the necessary research to accurately describe the extent of the problem in NZ as regards hospital-associated VTE. • Provide associated resources to DHBs/healthcare providers to assist them with VTE quality improvement. • Develop a VTE patient education programme. 		

What was your projected budget for this project?	The projected budget for this project was \$54,830.
What was your final spend on this project?	The final spend was \$38,733.39. The difference occurred because of savings made on the projected costs.
What are the tools, processes or materials that are available for others to use?	<p>The range of tools, processes and materials included in the National Policy Framework that are available for others to use are:</p> <ul style="list-style-type: none"> • Guidance with planning and delivering a robust in-hospital VTE prevention programme. • Clinical guidance with thromboprophylaxis for all adult inpatients • Data definitions and key metrics - process, outcome and balancing measures. • Project plan template. • Driver diagram. • VTE risk assessment tools and associated guidance. • Patient information and education resources. • Patient VTE risk self-assessment tool. • VTE audit sheets. • 'A3' VTE problem solving sheet. • VTE prevention promotional posters.
Please confirm that you have provided a final report for the Commission on your project, its outcomes and recommendations/learnings for the future	<p>This is the final report for the Commission on the VTE project, its outcomes and recommendations for the future.</p> <p>Also provided is the National Policy Framework for VTE prevention in adult hospitalised patients in NZ.</p> <p>Anne Blumgart - Project Manager NZ VTE Prevention Programme</p>

References

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