

Why VTE?

Venous ThromboEmbolism (VTE) consists of Pulmonary Embolism (PE) and Deep Venous Thrombosis (DVT), also known as blood clots. Hospital-acquired VTE can lead to death or serious harm and result in patients needing therapeutic anticoagulation, bringing risks of bleeding, inconvenience and cost.

Assessing in-patients for VTE and bleeding risk and choosing appropriate prophylaxis (e.g. antithrombotics +/- compression stockings or none) can greatly reduce patients' risk of VTE and avoid overtreatment.

In the three Irish hospitals participating in the ENDORSE trial, 64% of at-risk adult surgical patients and 47% of at-risk adult medical patients received appropriate prophylaxis¹. Suboptimal prophylaxis has also been reported in other in-patient groups.

Many Irish hospitals have improved their rates of appropriate prophylaxis with various interventions, but further improvement is possible in most settings. A recent Cochrane review concluded that multifaceted interventions and those involving alerts and/or education improved appropriate prophylaxis.

Improving VTE prophylaxis collaboratively means teams will learn from each other and VTE and quality improvement experts to test, measure and progress towards the improvement goal over time.

1. Murphy O et al. *Ir Med J.* 2012 May 105 (5): 140-3

What is a collaborative?

An improvement collaborative² brings together multidisciplinary teams to seek improvement in a focused topic area. Project team members will attend 3-4 learning sessions over 12 months. Action periods between sessions allow teams to identify, test and implement changes and measure progress towards the goal.

Before the first session (September)

1. Identify the sponsor

A member of the senior management team (e.g. Clinical Director or Director of Nursing), to support the team and champion the project.

2. Identify the project team

2-3 multidisciplinary team members will carry out day to day improvement work, measure, identify and test changes and attend learning sets.

3. Wider project team

A larger group to bring clinical and process expertise. Include somebody with experience of quality improvement (QI) to briefly and regularly coach and encourage the project team.

4. Governance and reporting arrangements

Progress will be reported to the sponsor and e.g. Drugs & Therapeutics +/- Quality committee(s). If you have any local requirements, e.g. project approval, commence that process now.

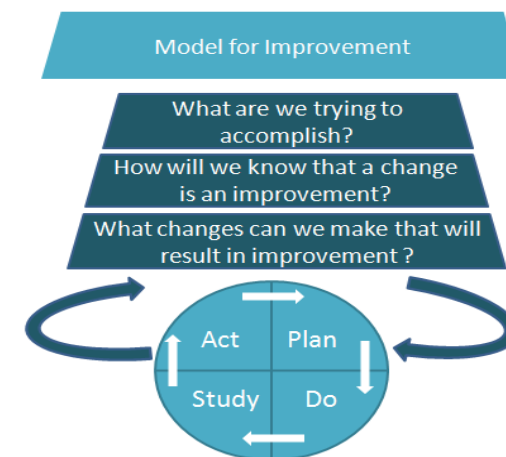
5. Collect baseline data

Separate instructions will be sent to inform this.

2. Institute for Healthcare Improvement. *The Breakthrough Series: IHI's collaborative model for achieving breakthrough improvement.* 2003. Available on www.ihl.org

Model for Improvement

The Model for Improvement provides a framework to structure improvement efforts and ensure the best chance of achieving goals³.



The model is based on 3 fundamental questions:

1. What are we trying to achieve?

Construct a clear aim statement (what, how much, in which patients, by when), e.g. Achieve appropriate prophylaxis within 24 hours of admission for 100% of adult medical patients by Jun 2017

2. How will we know that a change is an improvement?

What measures will reflect achievement of the goal?

3. What changes will we make that will result in improvement?

Consult widely (staff, patients, literature) to generate ideas on changes that might help achieve the aim, then test them.

3. Langley et al. *The Improvement Guide.* 1996

PDSA testing and Implementation

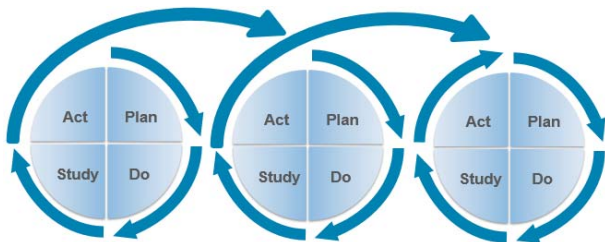
Once you have answered the 3 questions, very small tests can start, with learning from each test. Iterative PDSA cycles build on promising ideas for change and test them further.

Plan: What change will you test? What do you predict will happen? How will you measure?

Do: Carry out the plan including data collection.

Study: What did the test tell us? What worked and what didn't work? What should be adopted, adapted for further testing or abandoned?

Act: Use knowledge gained to plan next test of change. You are working with change methodology and a flexible hypothesis so it is ok to amend your objectives accordingly.



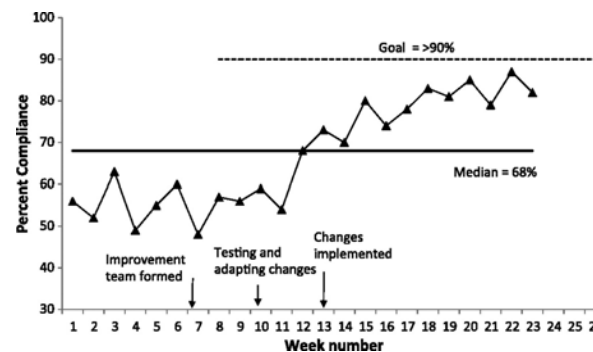
PDSA cycles can also be used when you come to implementing changes, to ensure that they are embedded into the system and performing as you wish.

Measurement

Measurement for improvement should show us:

- how the current process is performing
- how much variation there is in the process
- if changes result in improvement
- have the changes been sustained?
- if progress is being made towards a goal and if improvement is sustained.

Improvement requires change, and change happens over time. Tracking the measures over time is the single most powerful tool a team can use. Teams will collect data and plot on run charts throughout the collaborative (see example below).



Teams will be provided with several outcome and process measures by the collaborative team and will select the measures most appropriate to them for their current context.

More resources will be available at: www.safermeds.ie and during the collaborative.

Introduction to the Preventing VTE in Hospitals Improvement Collaborative



Hospital-acquired Venous ThromboEmbolism (VTE) is the most common preventable cause of in-hospital death. Assessing patients' risk of VTE and bleeding and choosing appropriate prophylaxis for them early in hospital admission reduces their risk of VTE.

This collaborative brings together multidisciplinary teams from acute hospitals to achieve appropriate prophylaxis for patients.

