

# 1.1 Percentage of admitted adult patients that are assessed for risk of venous thromboembolism

## Purpose

This indicator addresses the effectiveness of processes for preventing venous thromboembolism (VTE) in admitted patients.

## Background and evidence

The National Institute of Clinical Studies (NICS) has identified the widespread underuse of VTE prophylaxis in Australian hospitals as an evidence-practice gap.<sup>1</sup> Deep vein thrombosis and pulmonary embolism (collectively known as VTE) are major, potentially fatal complications of hospital admission. The incidence of VTE varies with age, medical condition, type of surgery and prolonged immobilisation. Assessing patients on admission for risk of VTE allows appropriate prophylaxis for those patients at risk. It is important that risk assessment is performed and documented in all patients – even low risk patients.

NICS recommends that hospitals develop a policy outlining standard processes and procedures for assessing all adult patients for VTE risk and guiding the selection of appropriate prophylactic measures. The policy should be approved by the local hospital Drug and Therapeutics Committee (DTC) and be informed by evidence such as the recommendations developed by the Australian and New Zealand Working Party on the Management and Prevention of Venous Thromboembolism.<sup>2</sup>

Use of locally agreed processes for assessing and documenting risk in all adult patients, and locally agreed recommendations for appropriate prophylaxis may assist implementation of best practice. Good documentation supports quality patient care,<sup>3</sup> thus VTE risk assessment should be clearly documented in the medical record together with the appropriate prophylactic measures taken to minimise the risk of VTE. Ideally, the format and location for documentation in the medical record should be standardised at a hospital level.

## Key definitions

**Admitted adult patients** refers to all patients aged 18 years and over who are admitted.

**Assessed for risk of venous thromboembolism** means explicit documentation of risk assessment and assessed status (eg, high, moderate or low risk) is included in the medical record and dated no later than the end of the next calendar day after admission.

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## Data collection for local use

**Recommended sample selection:** Random sample of adult patients admitted over a one month period. Random means each patient has an equal chance of inclusion in the audit.

**Recommended sample size:** The following sample sizes are recommended based on the number of adult beds in the hospital:

Number of adult beds in hospital	Sample size
150 or more	20% of patients
30 - 149	30 patients
Less than 30	All patients

Collecting a larger sample where possible will increase the sensitivity of the data.

**Recommended methodology:** Review of medical records.

## Data collection for inter-hospital comparison

This indicator may be suitable for inter-hospital comparison. In this case, definitions, sampling methods and guidelines for audit and reporting need to be agreed in advance in consultation with the coordinating agency.

## Indicator calculation

$$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$$

**Numerator** = Number of adult patients that have documented VTE risk assessment

**Denominator** = Number of adult patients in sample

## Limitations and interpretation

VTE risk assessment should help guide appropriate treatment options, including the choice of prophylactic therapy for VTE. See indicator 1.2 *Percentage of patients at high risk of venous thromboembolism that receive appropriate prophylaxis* for further information regarding VTE prophylaxis. It is recommended that these indicators be collected concurrently where possible.

## Further information

For more information and resources from the NICS "Stop the Clot" program for VTE prevention see the resource page on the NICS website

[www.nhmrc.gov.au/nics](http://www.nhmrc.gov.au/nics). Resources include a sample hospital VTE policy, a sample VTE risk assessment form, and a sample audit form.

The *Medication Safety Self Assessment for Antithrombotic Therapy in Australian hospitals<sup>4</sup> (MSSA-AT)* can help identify potential strategies for improvement with this and other indicators. The MSSA-AT encourages development of robust systems for safe prescribing, dispensing, administration and monitoring of antithrombotic therapy. The MSSA-AT is available at [www.cec.health.nsw.gov.au](http://www.cec.health.nsw.gov.au)

## References

1. Evidence-Practice Gaps Report Volume 1: National Institute of Clinical Studies, 2003.
2. Prevention of Venous Thromboembolism. Best Practice Guidelines for Australia and New Zealand. 3rd Edition: The Australia and New Zealand Working Party on the Management and Prevention of Venous Thromboembolism, 2005.
3. The Good Clinical Documentation Guide: National Centre for Classification in Health, Commonwealth of Australia, 2003.
4. Medication Safety Self Assessment for Antithrombotic Therapy in Australian Hospitals: Institute for Safe Medication Practices (Adapted for Australian use by the NSW Therapeutic Advisory Group and the Clinical Excellence Commission), 2007.