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## Thromboprophylaxis in general medical patients

Recommendations of the Thrombosis Guidelines Group of the Belgian Society on Thrombosis and Haemostasis and the Belgian Working Group on Angiology.

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The following recommendations concern patients with acute medical illness other than acute myocardial infarction, acute stroke or those admitted to the critical care unit.

### Outstanding points of the literature

There are fewer prospective studies on the incidence of deep vein thrombosis (DVT) or pulmonary embolism (PE) in hospitalized medical patients than in surgical patients. Most patients included in trials had acute heart or respiratory failure or infections.

The incidence of systematically detected DVT in acutely ill hospitalized patients not receiving prophylaxis is around 15% for all DVT and 5% for proximal DVT.

Most of the patients who develop DVT are asymptomatic and the natural history of subclinical DVT in this setting is unknown.

Low-molecular-weight heparin (LMWH) or low-dose unfractionated heparin (UFH) administered by

subcutaneous injection significantly reduces the incidence of subclinical DVT. Studies have not demonstrated a reduction in the incidence of symptomatic DVT or PE, but this may reflect a lack of statistical power in the trials. LMWH is at least as effective as low-dose UFH.

The use of aspirin for DVT prevention in medical patients has not been evaluated prospectively. The use of elastic compression stockings in medical patients has not been evaluated.

### Recommendations

#### *Assessment of the risk for DVT*

The risk factors for DVT should be assessed for each acutely ill patient individually. The assessment should take into account the acute illness itself and the pre-existing patient-related risk factors presented in Table 1.

#### *Prophylactic methods*

LMWH's are the preferred agents because they are more convenient than UFH. Not all LMWH's have been extensively studied yet. According to the available data, enoxaparin 40 mg/day administered subcutaneously may

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Table 1. – Patient-related risk factors for DVT

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– Age >75 years
– Cancer (previous or evolving)
– History of venous thromboembolism
– Obesity
– Varicose veins
– Hormone therapy (except postmenopausal hormone-replacement therapy)
– Chronic heart failure or respiratory failure
– Inflammatory bowel disease

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currently be the preferred agent. Elastic stockings could be of some benefit by extrapolation from data in surgical patients. Aspirin is not recommended.

#### *Thromboprophylaxis in hospitalized bedridden patients*

Prophylactic treatment should be provided for patients with acute heart or respiratory failure or bedridden patients with major acute illness + at least 1 patient-related risk factor for DVT.

#### *Thromboprophylaxis in non-hospitalized bedridden patients*

There are no data regarding non-hospitalized patients but it is likely that the risk for DVT is identical to that in patients hospitalized for a similar acute disease. Prophylaxis could therefore be recommended in bedridden patients with acute heart or respiratory failure or patients with major acute illness + at least 1 patient-related risk factor for DVT.

#### *Duration of thromboprophylaxis and platelet count monitoring*

The duration of prophylactic treatment should be limited to the duration of the acute medical illness which temporarily increases the risk for DVT. The platelet count should be checked once a week beyond the fifth day of LMWH administration.

#### *Clinical benefit and risk of thromboprophylaxis*

Members of the board stress that the benefit of prophylactic treatment must be balanced against the risk for each patient, in particular those who may be at increased risk for bleeding and who have not been properly evaluated in trials (patients with renal failure, low weight or in case of combined treatment with aspirin).

#### *Cost of thromboprophylaxis*

The cost per day of thromboprophylaxis, taking into account the drug acquisition and administration and the control of platelet count is 5.08€ and 11.69€ for hospitalized and non-hospitalized patients, respectively.

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