Advice on VTE prophylaxis for varicose vein procedures

Summary
• Varicose vein procedures are usually short, day-case interventions with low risk and low morbidity
• A range of techniques are available, and it is common for a combination of treatments to be used
• Venous thromboembolism, although rare, can occur, usually as DVT, but pulmonary embolism and death have been reported
• There are few clinical trials, so strategies to prevent VTE after varicose vein procedures are variable and inconsistent
• Patients with asymptomatic, undiagnosed or recent COVID-19 may be at significant risk of VTE after varicose vein procedures

Management Recommendations
• Assess all patients for VTE risk (and bleeding risk) using targeted VTE risk factors (see box) or using NHS DoH or another scoring system (e.g. IMPROVED, Caprini)
• Offer pharmacoprophylaxis when VTE risk exceeds bleeding risk (in addition to usual compression regime)
• Use low molecular weight heparin (LMWH), fondaparinux or direct oral anticoagulants (DOAC), adjusted for weight and renal function
• Manage patients according to UK NHS protocols for planned elective operations during the COVID-19 pandemic
• * Avoid elective varicose vein procedures in those with proven COVID-19 or symptoms within 90 days

VTE risk factors to consider for varicose vein procedures

- Personal or strong family history of VTE
- Known thrombophilia
- Reduced mobility
- Obesity (BMI >30)
- Hormone therapy
- Active Cancer
- Chronic prothrombotic medical conditions
- Superficial vein thrombosis
- COVID-19 symptoms or positive test*

Suggested algorithm (individualised approach recommended)

<table>
<thead>
<tr>
<th>MAGNITUDE OF VTE RISK</th>
<th>ANTICOAGULATION STRATEGY</th>
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<tbody>
<tr>
<td>At low risk</td>
<td>There is no good evidence for or against anticoagulation prophylaxis. Current practice includes no treatment, one dose, 3 doses or 3 days treatment</td>
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<tr>
<td>At additional risk</td>
<td>Patients are likely to need extended prophylaxis ¹ for 7 to 14 days duration</td>
</tr>
<tr>
<td>At high risk</td>
<td>Patients are likely to need extended prophylaxis for 4 to 6 week duration</td>
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¹ Standard prophylaxis: LMWH e.g. enoxaparin 40mg OD: or DOAC e.g. apixaban 2.5mg BID or rivaroxaban 10mg od.
Anticoagulant dose can also be adjusted for individual patient’s perceived risk.
* Avoid intervention within 90 days of COVID-19 illness if possible