**REDUCING THE INCIDENCE OF GROIN HAEMATOMA FOLLOWING PERCUTANEOUS ACCESS**

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**BACKGROUND**
Groin haematoma is an established complication after percutaneous access of the common femoral artery (CFA). Several studies exist analyzing data to establish factors responsible for development of haematoma after needle puncture of the CFA. Most of these studies use coronary angiography data. This audit has been conducted in order to identify factors associated with development of groin haematoma during and immediately after diagnostic and interventional angiographic procedures at our centre. Once risk factors identified, the aim was to modify our practices to minimize the incidence of groin complications.

**STANDARD:**
Most published articles reported the incidence to be between 5–10% [1][2][4]. This was corroborated with the results from a meta-analysis which included data from 2,373 cases [5].

**INDICATOR:**
Development of groin haematoma during the procedure until the patient left the radiology department.

**TARGET:**
Achieve an incidence rate on par with or better than published data [6][1].

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**ROUND ONE RESULTS**
The overall incidence of groin haematoma was 17% at our centre. Non-use of ultrasound (US) during access was associated with 81% cases of groin haematoma (33% of the study population had no US used).

Incorrect compression technique was found in 85% of the cases of groin haematoma. Only 18% of the study population had their groin manually compressed incorrectly.

**ROUND ONE ACTION PLAN**
Ultrasound guidance while performing groin puncture was standardized for both consultants and trainees

Trainees were formally taught correct technique of manual compression. A reference sheet was developed.

**ROUND 2 RESULTS**
A prospective re-audit of 100 cases during November 2015—March 2016 showed that the incidence rate had reduced to 6%. Ultrasound guidance was used to access the Common Femoral Artery (CFA) in 96% cases. All trainees were formally trained in manual compression technique.

The general demographics and case complexity was similar to previous audit as were other patient and procedural parameters.

<table>
<thead>
<tr>
<th>Total cases</th>
<th>Haematoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultrasound used</td>
<td>96</td>
</tr>
<tr>
<td>Ultrasound not used</td>
<td>4</td>
</tr>
</tbody>
</table>

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**TAKE HOME POINT!!**
Use of ultrasound guidance significantly reduces incidence of groin haematoma in interventional radiology.

Manual compression technique should be formally taught to all new radiology trainees.

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**REFERENCES**

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