Clinical Practice Procedures: Cardiac/Valsalva manoeuvre

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<th>Date</th>
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<td>Purpose</td>
<td>To ensure a consistent procedural approach to Valsalva manoeuvre.</td>
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<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
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Valsalva manoeuvre

The Valsalva manoeuvre is a first line treatment for the management of narrow complex SVT in the haemodynamically stable patient. The Valsalva manoeuvre is the only QAS approved vagal stimulation technique and comprised of four physiological phases.\[1\]-\[3\]

**Phase one:**
Onset of strain causes an increase in intrathoracic pressure. This has a compressive effect on the aorta, resulting in a transient increase in aortic pressure.

**Phase two:**
The end of this transient period, which results in decreasing aortic pressure and increasing heart rate

**Phase three:**
Abrupt release of the strain leading to sudden pressure drop within the aorta with a resultant compensatory increase in heart rate

**Phase four:**
Increased venous return, preload and therefore cardiac output results in an increased aortic pressure with compensatory ‘overshoot’ of blood pressure, leading to a reflex bradycardia

This reflex bradycardia is induced in an effort to break the pattern of a re-entrant circuit causing the SVT.

A maximum of three attempts at the Valsalva manoeuvre is recommended.

**Indications**
- Haemodynamically stable SVT

**Contraindications**
- Haemodynamically unstable SVT
- Third trimester pregnancy

**Complications**
- Syncope
- Prolonged hypotensive state
Procedure – Valsalva manoeuvre

1. Ensure all standard cares have been performed.
2. Explain the procedure to the patient.
3. Instruct the patient to blow into a sterile 10 mL syringe for approximately 15 seconds, aiming to blow the plunger along the barrel of the syringe.
4. Commence printing the ECG.
5. If the SVT has failed to revert, consider repeating the procedure 2 more times, ensuring the patient has returned to a haemodynamically stable SVT presentation prior to repeating.
6. Instruct the patient to abruptly cease blowing, and immediately relax (breath normally).
7. Annotate the end of the manoeuvre on the ECG print out.
8. Ensure the patient has returned to a haemodynamically stable SVT presentation prior to repeating the procedure.

Additional information
• If the SVT has failed to revert, consider repeating the procedure 2 more times, ensuring the patient has returned to a haemodynamically stable SVT presentation prior to repeating.