Clinical Practice Guidelines:
Cardiac/Tachycardia – narrow complex

<table>
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<tr>
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<tr>
<td>Date</td>
<td>April, 2018</td>
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<td>Purpose</td>
<td>To ensure consistent management of patients with tachycardia – narrow complex.</td>
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<td>Scope</td>
<td>Applies to Queensland Ambulance Service (QAS) clinical staff.</td>
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<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
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<tr>
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<td>Applies to all ages unless stated otherwise.</td>
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<td>Source of funding</td>
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Tachycardia – narrow complex

Narrow complex tachycardia (NCT) is defined as a heart rate > 100 bpm with a QRS width < 0.12 seconds and can be classified into cardiac or non-cardiac aetiology.

**Cardiac** – usually supraventricular or atrial in origin:

- SVT – Re-entry mechanism caused by:
  - stimulants (e.g. drugs, alcohol, coffee, energy drinks)
  - increase in sympathetic tone
  - electrolyte or acid-base disorders
  - hyperventilation
  - emotional stress or pre-excitation for example Wolff-Parkinson-White syndrome

- Atrial
  - atrial fibrillation
  - multiple atrial ectopics
  - atrial flutter.

**Non-cardiac** – the presence of a P-wave indicates a sinus tachycardia that can result from:

- pain/anxiety
- hyperthermia/fever
- drug induced
- anaemia

**Risk Assessment**

- Pre-hospital synchronised cardioversion is RARELY required for NCT.
- AF patients (> 24 hour history) are at risk of thrombus formation and therefore if appropriate a delayed approach to synchronised cardioversion should be considered.[2]

**Clinical features**

- Palpitations
- Chest pain and/or discomfort (described as burning, pressure or tightness) often rate related
- Dyspnoea
- ALOC
- Haemodynamic instability

**Additional information**

- Modified Valsalva manoeuvre should only be considered for patients with a regular NCT.
Suspected cardiac origin?

- Yes:
  - Manage as per: Relevant CPG

  Synchronised cardioversion
  Consider:
  - Oxygen
  - Aspirin (if myocardial ischaemia suspected)
  - IV fluid

- No:
  - Transport to hospital
  - Pre-notify as appropriate

Haemodynamically compromised?

- Yes:
  - Synchronised cardioversion

- No:
  - Regular rate?
    - Yes:
      - Consider:
        - Oxygen
        - Aspirin (if myocardial ischaemia suspected)
        - Modified Valsalva Manoeuvre
    - No:
      - Consider:
        - Oxygen
        - Aspirin (if myocardial ischaemia suspected)

Note: Clinicians are only to perform procedures for which they have received specific training and authorisation by the QAS.