### Drug Therapy Protocols: Tranexamic acid

<table>
<thead>
<tr>
<th>Policy code</th>
<th>DTP_TRXA_0120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>January, 2020</td>
</tr>
<tr>
<td>Purpose</td>
<td>To ensure a consistent procedural approach to tranexamic acid administration.</td>
</tr>
<tr>
<td>Scope</td>
<td>Applies to all Queensland Ambulance Service (QAS) clinical staff.</td>
</tr>
<tr>
<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
</tr>
<tr>
<td>Population</td>
<td>Applies to all ages unless specifically mentioned.</td>
</tr>
<tr>
<td>Source of funding</td>
<td>Internal – 100%</td>
</tr>
<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
</tr>
<tr>
<td>Review date</td>
<td>January, 2023</td>
</tr>
</tbody>
</table>

While the QAS has attempted to contact all copyright owners, this has not always been possible. The QAS would welcome notification from any copyright holder who has been omitted or incorrectly acknowledged.

All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

### Disclaimer

The Digital Clinical Practice Manual is expressly intended for use by QAS paramedics when performing duties and delivering ambulance services for, and on behalf of, the QAS.

The QAS disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs incurred for any reason associated with the use of this manual, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable.


This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives V4.0 International License

You are free to copy and communicate the work in its current form for non-commercial purposes, as long as you attribute the State of Queensland, Queensland Ambulance Service and comply with the licence terms. If you alter the work, you may not share or distribute the modified work. To view a copy of this license, visit [http://creativecommons.org/licenses/by-nc-nd/4.0/deed.en](http://creativecommons.org/licenses/by-nc-nd/4.0/deed.en)

For copyright permissions beyond the scope of this license please contact: Clinical.Guidelines@ambulance.qld.gov.au
# Tranexamic acid

## Drug class
Antifibrinolytic

## Pharmacology
Tranexamic acid (TxA) is a competitive inhibitor of plasminogen activation through the formation of a reversible complex displacing plasminogen from fibrin. This inhibits the process of fibrinolysis in addition to the protein breakdown caused by plasmin.[1,2]

## Metabolism
Hepatic metabolism with renal excretion.[1]

### Indications
- **Recent traumatic injuries** (≤ 3 hours) with a COAST score ≥ 3 and NOT within the P.A.T.C.H Study catchment

### Contraindications
- Allergy and/or Adverse Drug Reaction

### Precautions
- Nil

### Side effects
- Headache
- Nausea AND/OR vomiting
- Seizures

### Presentation
- Ampoule, 1 g/10 mL tranexamic acid

### Onset
- Minutes

### Duration
- Serum 7–8 hours

### Half-life
- 2 hours
Tranexamic acid

**Schedule**
- S4 (Restricted drugs)

**Routes of administration**
- Intravenous injection (IV)
- Intraosseous injection (IO)

**Special notes**
- Ambulance officers must only administer medications for the listed indications and dosing range. Any consideration for treatment outside the listed scope of practice requires mandatory approval via the QAS Clinical Consult and Advice Line.
- All cannulae and IV lines must be flushed thoroughly with sodium chloride 0.9% following each medication administration.
- The QAS use of tranexamic acid in trauma cases is consistent with national guidelines.[3,4]
- There is no role for the use of tranexamic acid during traumatic cardiac arrest.
- The P.A.T.C.H. Study catchment is defined as cases within the Metro North, Metro South, Gold Coast and West Moreton LASNs.

**Adult dosages**

**Recent traumatic injuries** (≤ 3 hours) with a COAST score ≥ 3 and NOT within the P.A.T.C.H. Study catchment

<table>
<thead>
<tr>
<th>Route</th>
<th>Dose</th>
<th>Administration</th>
<th>Total maximum dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>1g</td>
<td>Slow push over 2–3 minutes. Single dose only.</td>
<td></td>
</tr>
<tr>
<td>IO</td>
<td>1g</td>
<td>Slow push over 2–3 minutes. Single dose only.</td>
<td></td>
</tr>
</tbody>
</table>

**Paediatric dosages**[5]

**Recent traumatic injuries** (≤ 3 hours) with a COAST score ≥ 3

<table>
<thead>
<tr>
<th>Route</th>
<th>Dose</th>
<th>Administration</th>
<th>Total maximum dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>15 mg/kg</td>
<td>Slow push over 2–3 minutes. Single dose only. Total maximum dose 1g.</td>
<td></td>
</tr>
<tr>
<td>IO</td>
<td>15 mg/kg</td>
<td>Slow push over 2–3 minutes. Single dose only. Total maximum dose 1g.</td>
<td></td>
</tr>
</tbody>
</table>