

A novel use of TWO2© treatment to bridge delays in vascular intervention.

Background

National guidance recommends vascular intervention within two weeks from when acute critical limb ischaemia (CLI) is identified. Locally, an audit suggested a median wait of 8 weeks with emergency admissions in the interim to deal with the CLI.

To mitigate this risk in the short term, TWO2© therapy was proposed as an alternate treatment that could be used to bridge the time delay to intervention to prevent harm, complications and adverse outcomes

Method

Locally the team were using TW02 as per NICE guidance as an extension of treatment.

A series of patients received TW02 to bridge the gap to angioplasty.

Inclusion Criteria

- Diabetes ,Critical Limb Ischaemia/Severe PAD.
- Awaiting Vascular Intervention/Significant Ischaemic pain.

Target

- Reduce acute admissions.
- Reduce need for analgesia.
- Reduce need for antibiotics.

Patient Characteristics

n = 6

Mean Age – 76.5

Male 67% (4 out of 6)

100% Type 2 DM HbA1c – 58mmol/mol (average)

Median wait to intervention – 37.5days (5.35 weeks)

Results

Figure 1. – Waiting Times to Intervention

Duration Supported by TWO2© Whilst Awaiting Vascular Intervention



Figure 2. Antibiotic Use Whilst Awaiting Intervention

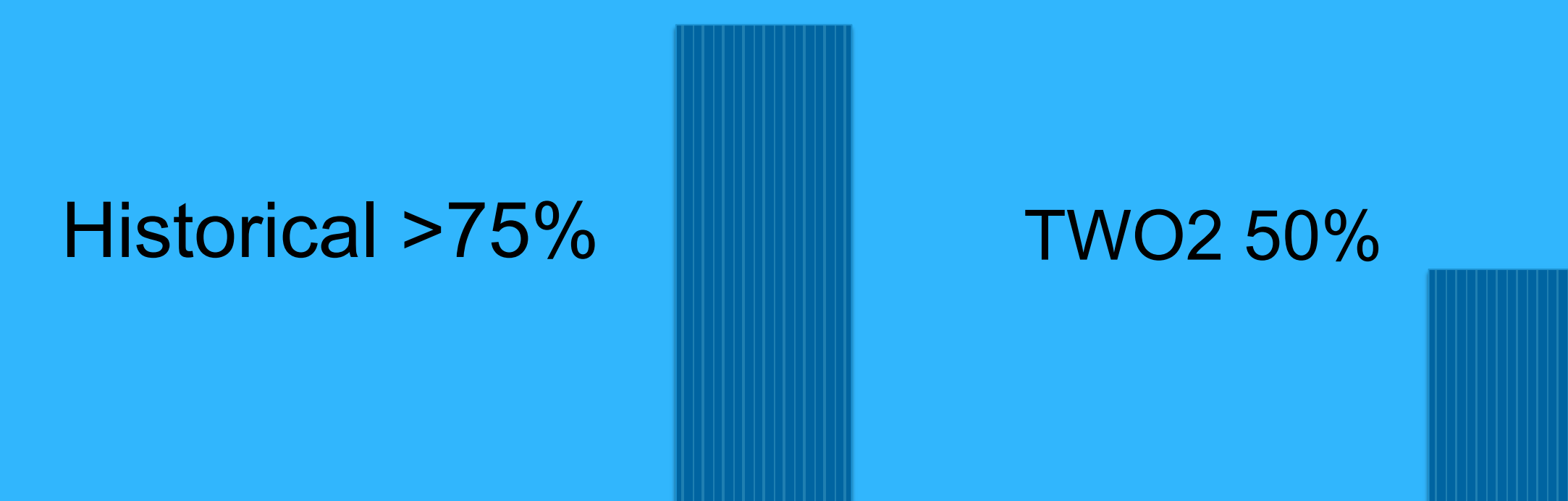


Figure 3. Analgesia Reduction and Pain Improvement

BEFORE TWO2

- Morphine Sulphate, Oramorph.
- Codeine, Paracetamol.
- Nefopam.
- Duloxetine, Pregabalin.

AFTER TWO2

- Reduced opioid dependence.
- Less overall analgesia.
- Improved patient comfort.

All patients reported benefits

Rebecca Beck – Diabetes Specialist Podiatrist Diabetic and High Risk Foot Service
Co Author – Michael Pierides – Diabetes Consultant- Kettering General Hospital

Conclusion

Key Benefits observed:

- Significant reduction in ischaemic pain.
- Reduced dependency on opioid analgesia.
- Total avoidance in emergency admission for CLI.
- Improved antimicrobial stewardship.
- Improved patient experience during prolonged vascular waits.
- Reduction in harm while patients awaited intervention was particularly notable.
- Potential role as a bridging intervention during vascular delays.
- Key limitations are the lack of objective RCT data and larger sample size.

TAKE HOME MESSAGE:

TWO2© may provide a safe and effective bridge for patients with critical limb ischaemia awaiting delayed vascular intervention, reducing pain, reducing antibiotic exposure and helping prevent emergency admission, tissue loss and overall outcome.