The impact of the gentamicin-eluting injectable synthetic bone substitute, CERAMENT G, in the treatment of toe amputation for chronic bone infection at a minimum one year follow-up.

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BACKGROUND
Chronic bone infection in the foot is challenging and costly to treat, particularly where diabetes co-exists. Our diabetic foot MDT includes orthopaedic, vascular, endocrine, microbiology, podiatry and tissue viability expertise to address this.

Cerament G is a gentamicin-eluting injectable synthetic bone substitute which may also have a role to play.

METHODS
We retrospectively reviewed 49 consecutive cases of toe amputation for infection and assessed:
• Diagnosis of diabetes;
• Extent of amputation;
• Cerament G use;
• Emergency admission or via diabetic foot / elective / fracture clinic;
• Wound healing at routine review;
• Re-operation rate;
• Pre, intra and post-op imaging;
• Pre-op HbA1c;
• Post-op oral / IV antibiotic use;
• Microbiology culture results
• Evidence of complications relating to Cerament G use.

RESULTS
57.1% of patients had a confirmed diagnosis of diabetes (average pre-op HbA1c 72.6, range 40-122 mmol/mol).

Cerament G was used in 32.7% cases.

With Cerament G use:
• 37.5% patients discharged with oral antibiotics post-operatively;
• 87.5% of wounds healed or healing at review;
• 6.3% re-operation rate for infection at 1yr.

With no Cerament G use:
• 36.4% patients discharged with oral antibiotics post-operatively;
• 86.7% of wounds healed or healing at review;
• 9.1% re-operation rate for infection at 1yr.

DISCUSSION
In this small, retrospective series, Cerament G appears to demonstrate potential benefits in toe amputation for chronic bone infection.

Further work is needed to investigate its cost-effectiveness and its role in the absence of post-operative oral / IV antibiotics.