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Aim and Background

The management of diabetic foot osteomyelitis frequently presents with a significant clinical challenge, largely due to the presence of complex comorbidities, challenging microbiology and the high risk of adverse outcomes. Local application of calcium sulphate beads (*Stimulan*®) offers an adjunctive treatment by enabling a high concentration of antimicrobial delivery individually tailored to the patient's needs. This review evaluates local practice at Kettering General Hospital multidisciplinary team (MDT) regarding bedside use of calcium sulphate for local antibiotic delivery and treatment.



Results

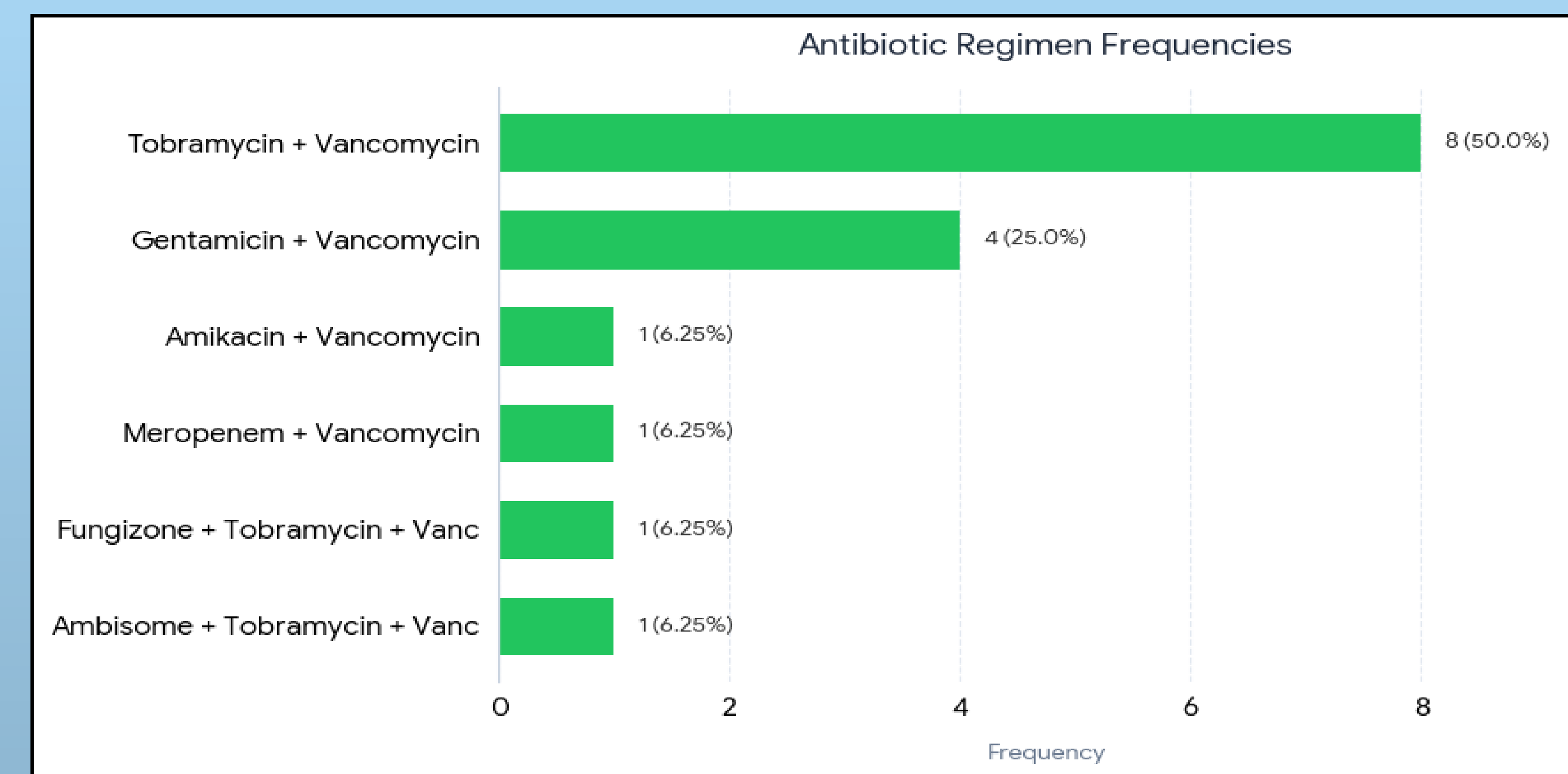
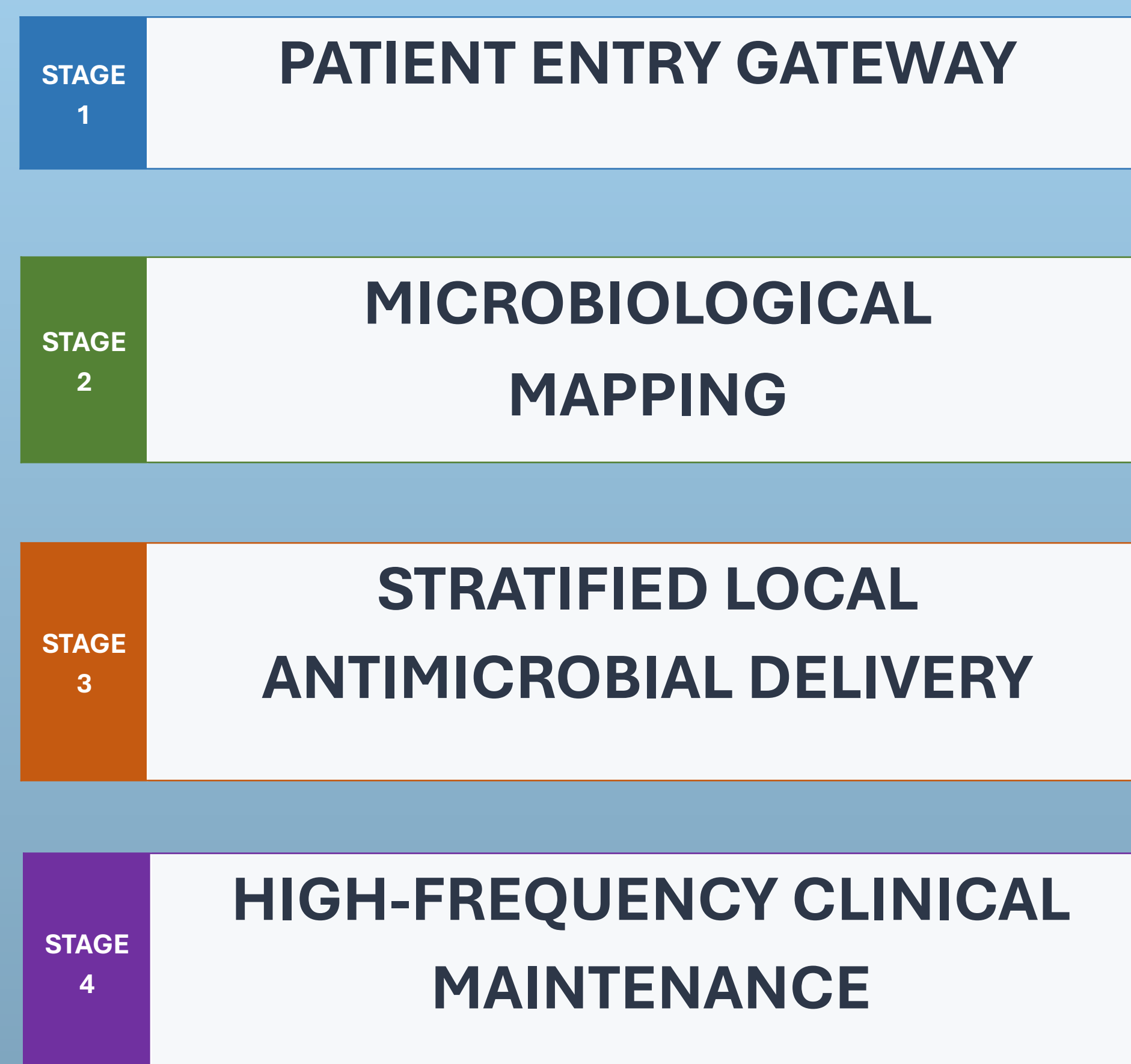
17 patients initially treated with weekly therapy. 2 patients lost to follow up. Age range was 44 to 87 (mean = 65). Sinbad scores ranged from 4-6 for this cohort. Predominant co morbidities were PVD and CKD. The mean duration of weekly treatment was 7 weeks. The mean healing time was 17 weeks ranging 3 – 30 weeks. One patient underwent a clinically expected trans metatarsal amputation. No reported systemic or local adverse effects.

Conclusion

Within the context of standard care delivery, (NICE 19): Antibiotic and amphotericin B loaded calcium sulphate beads were observed to be a safe and effective adjunctive treatment option in complex patients with radiological osteomyelitis . Use was comparable with other studies undertaken. Patient selection needs to be considered under a MDT remit. Supports local antibiotic stewardship initiatives . The evaluation was limited by small numbers and no control or comparable group. Further larger prospective studies are advisable.

References Biocomposites (2024) STIMULAN®.
<https://biocomposites.com/our-products/stimulan/>

Methodology: Retrospective service evaluation: (1/4/24 to 31/3/ 26)



Healing Status (6 Months)	Case Count	Cohort Distribution
Yes	12	80.0%
Trans metatarsal Amputation (Clinically Expected)	1	6.7%
No (ongoing)	2	13.3%
Total Cohort	15	100.0%