**Antibiotic Simplex®**

**Bone Cement**

- **Antibiotic Simplex®** with Tobramycin

**The Issues**

- To combat potential deep wound infection in the immediate post-operative period.
- To maintain the bone cement's integrity ensuring there is no loss of strength due to the addition of antibiotics.
- To create a strong bone cement-implant composite.

**Independent studies**

1, 2, 3 have shown that Antibiotic Simplex® has the same excellent strength properties as Simplex®.

**The Facts**

- **Simplex®** has been proven in independent studies to have optimal
  - Fatigue Strength
  - Compressive Strength
  - Shear Strength
  - Creep
  - Penetration into Bone

**Infection Control**

The problem of infection associated with total joint replacement has been reduced by both increased surgical experience and improved surgical conditions, however, deep infection remains a problem. Studies using antibiotic-loaded cement have clearly shown success in containing the rate of deep infection.

Over 20 million units of Simplex® have been supplied for implantation since 1960, which along with more than 255 published papers and references has led Simplex® being recognised as one of the most researched, studied and tested orthopaedic products in the world.

Antibiotic Simplex® has a history spanning more than ten decades and can now be prescribed non-sterile and sterile versions, providing the choice to tailor a treatment to individual needs.
**Effective release characteristics**

Antibiotic release can be tailored to suit the needs of the surgical procedure. Antibiotic Simplex® and Antibiotic Simplex® with Tobramycin are available in different combinations of antibiotics to suite the needs of the surgeon and patient.

**Broad spectrum protection**

Studies have shown that Antibiotic Simplex cement is effective against a wide range of bacteria, including both gram positive and gram negative bacilli. Antibiotic Simplex with Tobramycin is especially effective against anaerobic bacteria.

**Safe for clinical use**

Antibiotic Simplex cement is a non-toxic drug and lacks deleterious effects. Studies have shown that Antibiotic Simplex and Antibiotic Simplex with Tobramycin are safe and effective in clinical use.

**Optimal strength**

Optimal strength is no significant reduction in fatigue properties when compared to Simplex. This is not the case for all cement brands.

**Ethiopathology**

1. Ethylenimine gives a higher incidence of skin and organ reactions. Ethylenimine is a non-toxic drug and lacks deleterious effects.
2. Simplex has a higher rate of osteolysis compared to Antibiotic Simplex. Antibiotic Simplex cement is heat stable and non-toxic. More than 30 years of clinical use has shown that Simplex cement provides a non-toxic drug and lacks deleterious effects.

**Clinical process**

After this period the release of Erythromycin and Colistin is effective not only against gram +ve and gram -ve organisms but also against anaerobic and mycobacteria.

**Clinical effectiveness**

The combination of Erythromycin and Colistin is especially effective against anaerobic and mycobacteria. Antibiotic Simplex with Erythromycin and Colistin is foundational in the treatment of bone and joint infections. Antibiotic Simplex with Erythromycin and Colistin is the foundation for the treatment of bone and joint infections.

**Optimal outcomes**

Antibiotic Simplex cement is an excellent material for the treatment of bone and joint infections. Antibiotic Simplex cement is the foundation for the treatment of bone and joint infections.

**Bibliography**

- Studies have shown that Antibiotic Simplex cement is effective against a wide range of bacteria, including both gram positive and gram negative bacilli. Antibiotic Simplex with Tobramycin is especially effective against anaerobic bacteria.
- Antibiotic Simplex cement is heat stable and non-toxic. More than 30 years of clinical use has shown that Simplex cement provides a non-toxic drug and lacks deleterious effects.
- Antibiotic Simplex with Tobramycin is especially effective against anaerobic bacteria. Antibiotic Simplex with Tobramycin is the foundation for the treatment of bone and joint infections.
- Antibiotic Simplex cement is the foundation for the treatment of bone and joint infections.
- Antibiotic Simplex cement is an excellent material for the treatment of bone and joint infections.