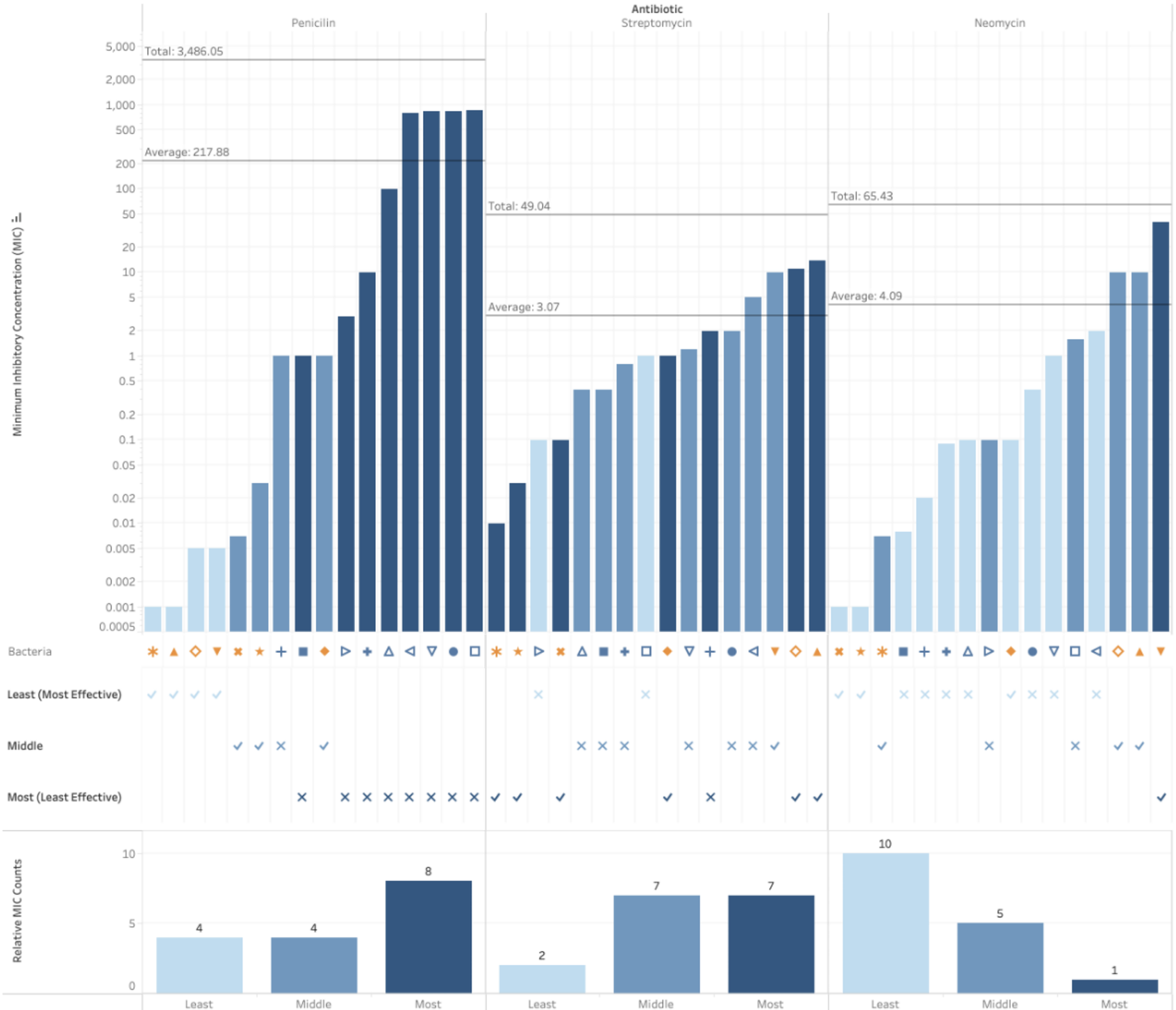
Antibiotics Effectiveness Against Bacterial Infection



Context

After World War II, antibiotics were considered “wonder drugs,” since they were an easy remedy for what had been intractable ailments. To learn which drug worked most effectively for which bacterial infection, the performance of the three most popular antibiotics on 16 bacteria were gathered. The minimum inhibitory concentration (MIC) is a measure of the effectiveness of the antibiotic, which represents the concentration of antibiotics required to prevent growth in vitro. Bacteria that are stained dark blue or violet are Gram-positive. Otherwise, they are Gram-negative.

Relative MIC Needed
- Least (Most Effective)
- Middle
- Most (Least Effective)

This score compares an antibiotic's performance against the others. An antibiotic is more effective if it needed the least concentration (MIC) for a specific bacteria compared to the other two antibiotics.

Gram Staining
- negative
- positive

Gram Staining
- ✕ negative
- ✓ positive

Best Antibiotic For Each Bacteria

Bacteria	Penicillin	Streptomycin	Neomycin
□ Aerobacter aerogenes		✓	
+ Brucella abortus			✓
✱ Brucella anthracis	✕		
◇ Diplococcus pneumoniae	✕		
△ Escherichia coli			✓
▽ Klebsiella pneumoniae			✓
◁ Mycobacterium tuberculosis			✓
▷ Proteus vulgaris		✓	
● Pseudomonas aeruginosa			✓
■ Salmonella (Eberthella) typhosa			✓
✚ Salmonella schottmuelleri			✓
✖ Staphylococcus albus			✕
★ Staphylococcus aureus			✕
◆ Streptococcus fecalis			✕
▲ Streptococcus hemolyticus	✕		
▼ Streptococcus viridans	✕		