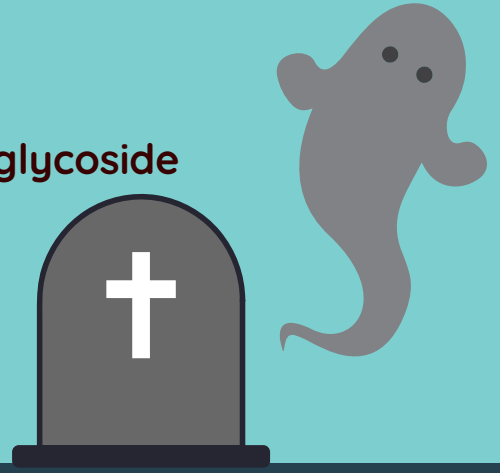


MY TOP 5 TAKES

on a paper titled

A Systematic Review of Single-Dose Aminoglycoside Therapy for Urinary Tract Infection: Is It Time To Resurrect an Old Strategy?



OLD IS GOLD

Aminoglycosides work

The first agent (streptomycin) was found in the 1940s and its activity as a group remains excellent against uropathogens until today.

The same cannot be said for agents like fluoroquinolones, nitrofurantoin and TMP-SMX. Resistance has increased against them of late!

PEOPLE ARE AGEIST

OR scared of toxicity.

Clinicians are in favour of using other agents as aminoglycosides can cause ototoxicity and nephrotoxicity.

Besides, one may need to give multiple dosing per day (non-Hartford way) when using them.

Nonetheless, they are excreted near exclusively in kidneys making them excellent agents for UTI

ONE DOSE ONLY

100-TIME STRONGER

They can exceed plasma concentration by up to 100-fold within an hour of administration!

Case in point:

1 mg/kg genta given intravenously reached a level of 400 mg/L = 100 x above MIC breakpoint for Enterobacteriaceae set by CLSI

LET'S GO META

WHICH STUDIES GOT INCLUDED?

13, 804 subjects from 13 studies (1978-1991) were included. Population age ranges from 2 weeks to > 70 years old. These include both in- and outpatient populations. Four were multi-centre and 7 included a comparator arm (fosfomicin/amoxicillin/TMP|SMX/oral ceph)

UTI aetiology;

72% E coli,
11% Proteus,
5% Klebsiella

Netilmicin was the most common aminoglycosides (5/13)

WOW, IT WORKS!

OVERALL CURE RATE = 94.5%

Microbiological cure was in excess of 85%.

Variable relapse and recurrent rates were seen with an overall rate of 19% for 30-day recurrence. It is unclear to me what these rates were for the comparator arms.

The microbiological rate was lower in subjects with urinary tract abnormalities.

THIS LOOKS PROMISING!!!