MAKEAWARE x Spearhead

To test the efficacy of antibiotics on specific bacteria, scientists in the laboratory position antibiotic pills in a transparent lidded dish (called Petri) covered by bacteria. After some cultivation hours, it is possible to observe the efficacy of antibiotics that prevent bacteria growing. The higher the antibiotic efficacy, the less the bacteria spread, leaving an empty space around the pill. On the other hand, the smaller that area, the higher the resistance development. The use and misuse of antibiotics is one of the leading causes of resistance development. Consuming antibiotics responsibly helps preserve their efficacy.

https://github.com/zumatt/diplab

DipLab – Digital Petry Laboratory

/Patient Dossier

Patient code: 31294

Age: 71

Disease: Otitis

Bacterium: Streptococcus pneumoniae

Drug allergies: –

Medical history:
Patient, age 71, diagnosed with Otitis media caused by Streptococcus pneumoniae. No known drug allergies. Presented with symptoms of ear pain, hearing loss, and mild fever. History of recurrent ear infections. Requires comprehensive antibiogram for effective antibiotic selection.

Lab signature: _____

Bacterium: Streptococcus pneumoniae

Acronym	Zone Diameter Breakpoints (mm)		Antibiotic name	Diameter size (mm)	Diameter category (Sensitive/Resistant)
	Sensitive ≥	Resistant <			
NF100	15	15	Nitrofurantoin		
R 5	21	21	Rifampicin		
AM 2	22	19	Ampicillin		
OX 1	20	20	Oxcillin		
MX 5	19	19	Moxifloxacin		
NX 10	12	12	Norfloxacin		
TP 30	15	15	Teicoplanin		
VC 5	13	13	Vancomycin		
TH 15	20	20	Telithromycin		
CD 2	17	17	Clindamycin		
MY 30	24	24	Minocycline		
TG 15	19	19	Tigecycline		
LZ 10	19	19	Linezolid		
TD 2	18	18	Tedizolid		
LF 5	12	12	Lefamulin		