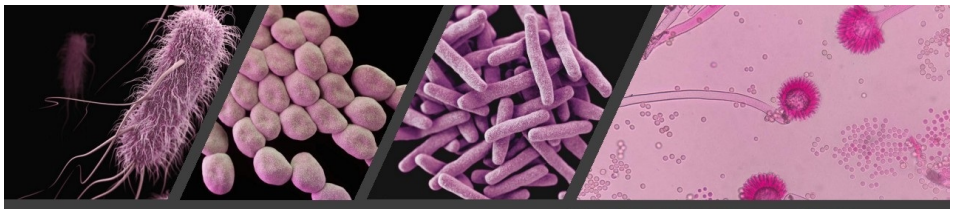

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Oxytetracycline 30µg agar disk diffusion results for four QC strains

Friday 12 September 2025 12:30 (15 minutes)

Antimicrobial susceptibility testing is important to predict the outcome of antimicrobial therapy. Therefore, the aim was to compare oxytetracycline 30µg disk and media lots for four reference strains as a pre-requisite to establish QC ranges. Eight laboratories tested *Escherichia coli* ATCC® 25922, *Staphylococcus aureus* ATCC® 25923, *S. aureus* ATCC® 29213, and *Streptococcus pneumoniae* ATCC® 49619 with 2 lots oxytetracycline 30µg disks 10 times on 3 lots agar according to CLSI and EUCAST. As quality control, one lot tetracycline 30µg disks was tested on one medium lot. The data was analyzed using the RangeFinder software. All tetracycline values were in range. For *S. aureus* ATCC® 25923 a range of 21-35mm (98.96% values included), mean values were 25.74mm, 30.63mm and 26.53mm for media und 28.12.mm and 27.15mm for disks. For *S. aureus* ATCC® 29213 the calculated. range was 20-33mm (96.88%; mean 24.45/28.22/25.54mm [media], 26.68/25.46mm [disks]). The *E. coli* ATCC® 25922 range is 17-29mm (99.79%; mean 21.47/25.76/21.78mm [media], 23.85/22.16mm [disks]). For *S. pneumoniae* ATCC® 49619 (CLSI) a range of 24-35mm (98.96 %; mean 28.57/30.49/28.87mm [media], 29.90/28.72mm [disks]) was determined. EUCAST method revealed a range of 24-37mm (100%; mean 29.19/31.60/29.85mm [media], 30.74/29.69mm [disks]). In conclusion, for media lot B the zone diameters seemed larger. When quality control data is out of range, the use of an alternative medium/disks lots might be an option.

Keywords

antimicrobial susceptibility testing, validation, CLSI, EUCAST, interlaboratory trial, RangeFinder software

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