



Emerging Bacterial Trends in Canine and Feline Urinary Infections

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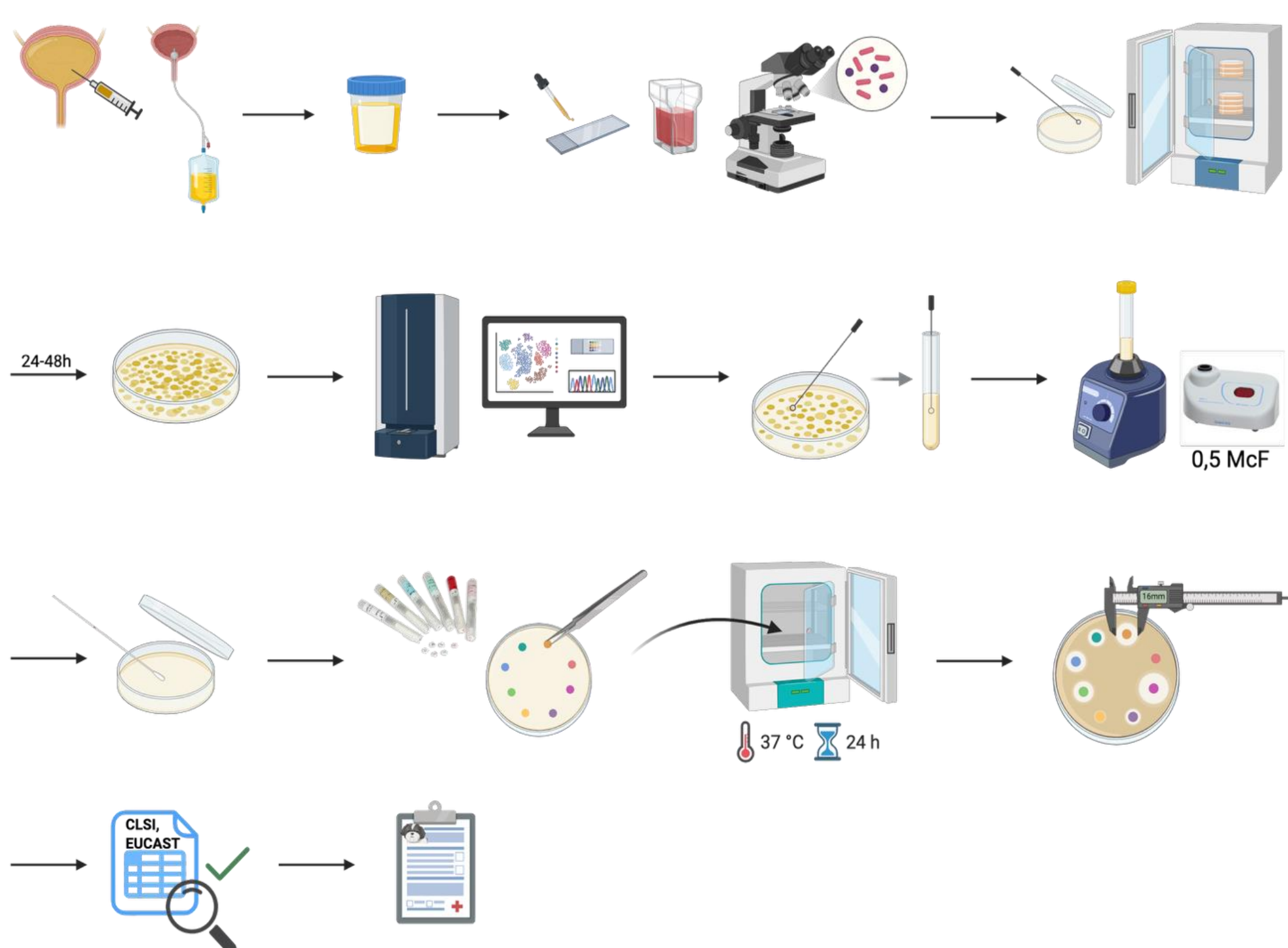
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Abstract: This study analyzed bacterial isolates from companion animals with suspected UTIs, finding that Gram-negative bacteria—especially *E. coli*—were the most common pathogens. High resistance to beta-lactams and aminoglycosides was observed, while carbapenems and fluoroquinolones remained more effective, underscoring the need for culture-based antibiotic selection and ongoing resistance monitoring.

• Introduction

UTIs in small animals are becoming harder to treat due to increasing antimicrobial resistance, while *E. coli* remains the dominant pathogen and other MDR bacteria are increasingly found. This study examines 70 urine samples and several MDR clinical cases to underline the importance of accurate laboratory diagnosis and informed antibiotic selection.

• Material and method



• Results and discussions

Bacterial growth was detected in 88.6% of samples, with Gram-negative pathogens representing nearly three-quarters of isolates and *E. coli* being the most frequently identified species. Susceptibility testing showed the highest efficacy for imipenem and fluoroquinolones, while β -lactams had consistently low performance, and multidrug resistance was observed in 28% of positive cases. These data provide a clearer picture of the current pathogen distribution and resistance patterns in companion animal UTIs.

• Conclusions

A large proportion of samples showed bacterial growth, dominated by Gram-negative isolates, and over a quarter of these were multidrug-resistant. Carbapenems and fluoroquinolones remained the most effective treatments, highlighting the need for careful, evidence-based antibiotic selection.

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