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Incidence and antibiotic susceptibility of bovine respiratory disease pathogens isolated from the lungs of veal calves with pneumonia in Switzerland



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EAAP Annual meeting 2009, Barcelona, 26.08.09



Introduction

EAAP 2009, session 5, abstract nr 4577

- Bovine respiratory disease = fourth cause of antibiotic use
- Bovine respiratory disease = economic losses
- High incidence at arrival of veal calves in fattening units
- Pro- and metaphylactic treatment with antibiotics



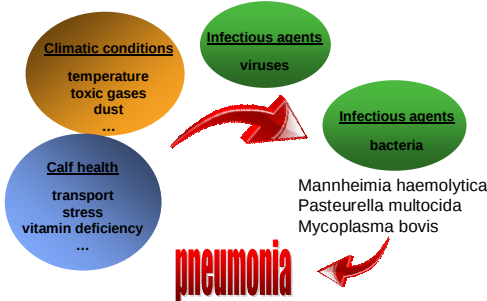
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Introduction

EAAP 2009, session 5, abstract nr 4577

Bovine respiratory disease:



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Main objective of the study

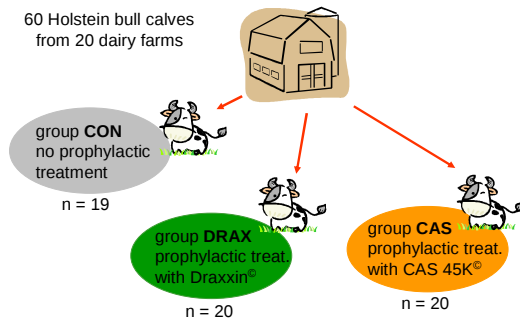
- To investigate the incidence and antibiotic susceptibility of the major bovine respiratory bacterial pathogens
- Evaluation of different pro-/metaphylactic strategies at the entry of veal calves in the fattening unit





Materials and methods

60 Holstein bull calves
from 20 dairy farms





Materials and methods

- Evaluation of health status with score system for respiratory traits
- Pneumonia diagnosed by presence of fever, cough, respiratory sounds, dyspnea, reduced feed intake,...
- Transtracheal lavage on day of diagnosis of first episode of pneumonia
- Treatment of pneumonia with antibiotics (Oxytetracyclin, Florfenicol, or Danofloxacin)

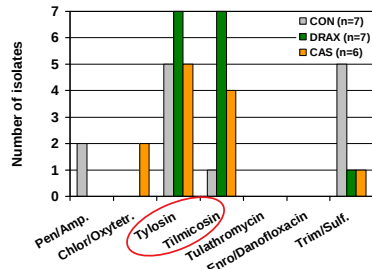




Results and Discussion

Distribution of intermediate and resistant *Pasteurellaceae* isolates in the different groups:

Pasteurella multocida (n=20)



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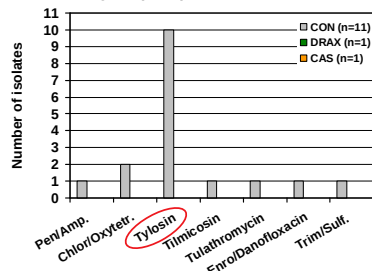
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Results and Discussion

Distribution of intermediate and resistant *Pasteurellaceae* isolates in the different groups:

Mannheimia varigena (n=13)



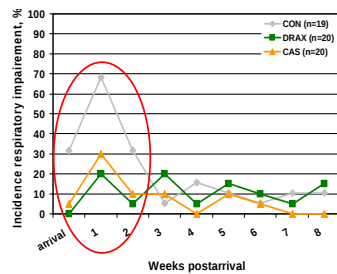
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Results and Discussion

Health Status:



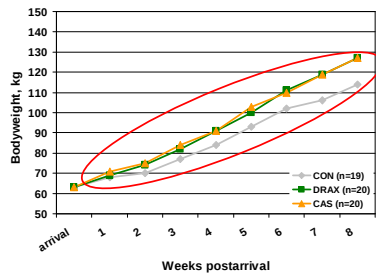
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Results and Discussion

Growth Performance:



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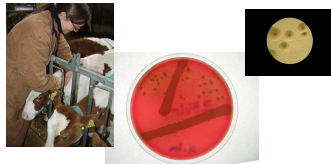
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Conclusions

- High prevalence of *Mannheimia varigena*
- High incidence of intermediate and resistant isolates to tylosin and tilmicosin
- Tulathromycin not appropriate for treatment of *Mycoplasma bovis*

→ Macrolide antibiotics not appropriate for pneumonia treatment



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