



Antimicrobial Resistance

IDF Factsheet – February 2012



The emergence of antimicrobial resistance in bacteria has had profound effects on the management of therapeutic approaches to both human and veterinary diseases. Treatment and control of mastitis is the most common use of antimicrobials in dairy cows.

Review of Literature

- A comprehensive review of the scientific literature by the IDF-Standing Committee on Animal Health demonstrated no apparent progression of antimicrobial resistance in mastitis pathogens after four decades of antimicrobial drug use in dairy cows.
- Although resistance to antimicrobials among mastitis pathogens has been documented for nearly four decades, evidence has not been presented to suggest that this is a changing phenomenon.
- Empirical scientific trials that have compared antimicrobial resistance of bacteria isolated during different chronological periods have demonstrated similar patterns of resistance today as those recorded over the last 30 years.



Future Outlook

- Prudent use of antibiotics is a vital component in disease control and assuring milk quality in most successful dairy management schemes.
- Isolated reports of resistant strains and detection of resistance genes in bacteria found associated with dairy cattle and dairy products emphasize the need for prudent and vigilant oversight of management.

Actions

- IDF-Standing Committee on Animal Health will continue to monitor and report new research results, in comparison with historical data, to alert the dairy industry of confirmed changes in antimicrobial resistance among mastitis pathogens.
- Appropriate and coordinated responses to prevent and control spread of resistance by management of therapeutic regimes will be proposed by the IDF if an emergence of antimicrobial resistance among mastitis pathogens is confirmed



International Dairy Federation

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References

Erskine, R.J., J.C. Cullor, M. Schaellibaum, R. Yancey, and A. Zecconi. 2004. Bovine mastitis pathogens and trends in resistance to antibacterial drugs. Review report submitted to Natl. Mastitis Council, in Proceedings of the 43rd Annual Meeting of the National Mastitis Council, 400-407.

<http://www.fil-idf.org/WebsiteDocuments/AHNewsletter2.pdf>