

Milk Residues from a Veterinarian's Perspective

Julie Smith, DVM, PhD

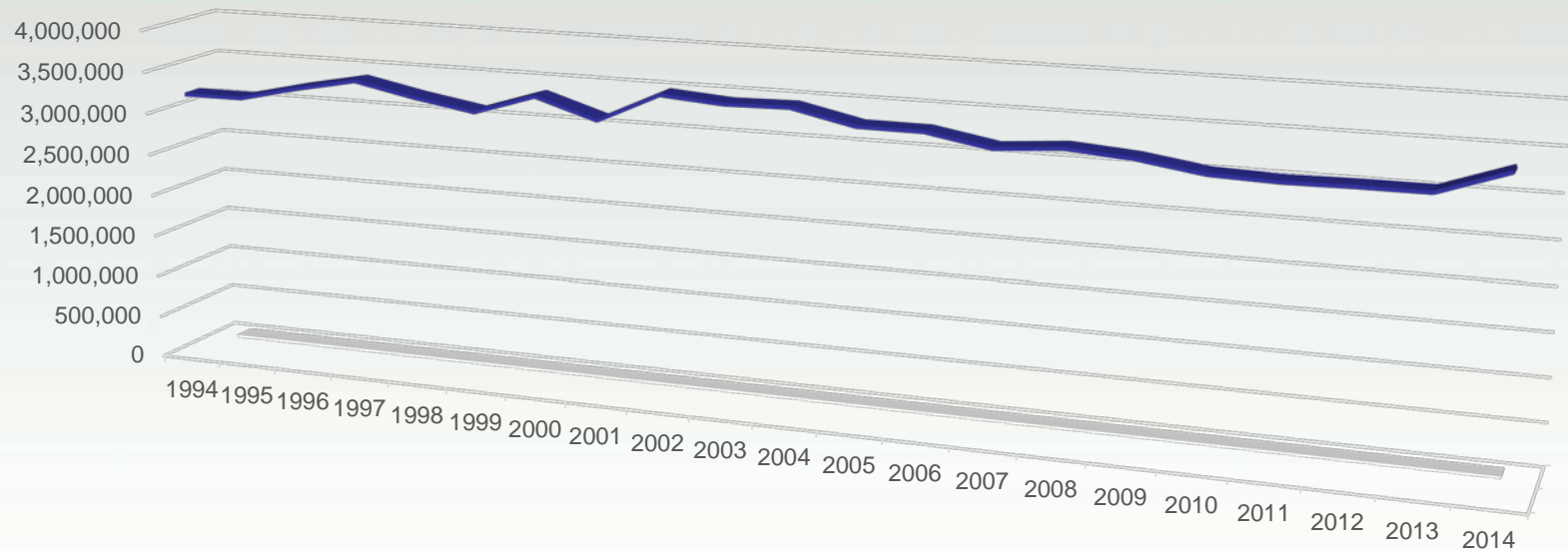
Animal and Veterinary Sciences
University of Vermont

November 5, 2015



What's the big deal?

Out of 3 million bulk pick up samples (Grade A & B) tested per year, less than 500 are positive.



What drugs are being found?

- Beta-lactams (394)
- Sulfanomides (15)
- Enrofloxacin (fluoroquinolone) (1)
- Tetracyclines (2)
- Aminoglycosides (0)
- Cloxacillin (0)
- Macrolides (0)

What drugs can be found?

- Aminoglycosides (non-validated)
- Amphenicols (validated)
- Beta-lactams (validated)
- Clorsulon-HPLC (validated)
- Fluoroquinolone (non-validated)
- Macrolides (non-validated and validated)
- Novobiocin (non-validated)

What drugs can be found?

- Spectinomycin (non-validated)
- Sulfonamides (validated and non-validated)
- Tetracyclines (validated and non-validated)
- New multi-family drug test - validated
 - Charm FLUSLBL
 - Beta-lactams or flunixin

Are meat residue violators also milk residue violators?

Milk Residue	Prior meat violators	Random sample
Positive	11	4
Negative	942	955
Total	953	959

Drugs tested in CVM survey

Same as those routinely tested for, plus

- Ciprofloxacin, Sarafloxacin
- Doxycycline
- 5-hydroxyflunixin (2 ppb)
- Virginiamycin
- Tilmicosin
- Chloramphenicol
- Florfenicol (Nuflor)
- Tulathromycin (Draxxin)

What drugs were found?

- Sulfamethazine (1)
- Gentamicin (1)
- Ciprofloxacin (1)
- Tilimicosin (1)
- Tulathromycin (2)
- Florfenicol (6/4)

Out of 1912 samples, 16 residues were detected.

What causes drug residue violations?

- Failure to maintain a valid veterinarian-client-patient relationship
- Inadequate treatment records
- Failure to identify and withhold treated cows from slaughter
- Not following labeled directions

What causes drug residue violations?

- Failure to maintain a valid veterinarian-client-patient relationship
- Inadequate treatment records
- Failure to identify and withhold treated cows from slaughter
- Not following labeled directions

Inadequate farm management practices

Are tissue residues a big problem?

- In 2012, 3.1 million dairy cattle went to slaughter
- 360 cows tested positive (0.01%)
- Dairy cattle represent 8% of beef animals

Are tissue residues a big problem?

- In 2012, 3.1 million dairy cattle went to slaughter
- 360 cows tested positive (0.01%)
- Dairy cattle represent 8% of beef animals
- **90% of residues from inspector-generated samples came from dairy cattle**



Concluding thoughts

- Focus on the major issue – beta-lactams
- Respect a valid client patient relationship (VCPR) regarding extra-label drug use (ELDU)
- Remember the right to use antimicrobials comes with responsibilities