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NEGATIVE PHILOSOPHY / OPENING QUOTES

No easy legislative solutions to antibiotic resistance

**Dr. Scott Hurd 2013 (Associate Professor and Director of the Food Risk Modeling and Policy Laboratory at Iowa State University’s College of Veterinary Medicine in Ames, Iowa; former Deputy Undersecretary for Food Safety at USDA) Dec 2013 / Jan 2014 “**Public Health Risk of Antibiotic Use in Food Animals” FOOD SAFETY MAGAZINE <http://www.foodsafetymagazine.com/magazine-archive1/december-2013january-2014/public-health-risk-of-antibiotic-use-in-food-animals/>

The problem of controlling antibiotic resistance is complex. It will not succumb to easy solutions or broad, sweeping legislation. Bacteria have no political persuasion and are unabashed by man-made laws and regulations.

TOPICALITY

1. Not a change in policy

Status Quo policy is to phase out indiscriminate use of farm antibiotics

NEW YORK TIMES 2013 (journalist Sabrina Tavernise) 11 Dec 2013 “F.D.A. Restricts Antibiotics Use for Livestock <http://www.nytimes.com/2013/12/12/health/fda-to-phase-out-use-of-some-antibiotics-in-animals-raised-for-meat.html>

The Food and Drug Administration on Wednesday put in place a major new policy to phase out the indiscriminate use of antibiotics in cows, pigs and chickens raised for meat, a practice that experts say has endangered human health by fueling the growing epidemic of antibiotic resistance.

Impact: No Affirmative team

Since the Affirmative isn’t changing any agriculture policy, no one in the room today is affirming the resolution. No matter who wins, you should write Negative on the ballot.

INHERENCY

1. The new FDA policy

FDA rules will make it illegal to use antibiotics for animal growth and require vet prescriptions for disease prevention

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“This is the first significant step in dealing with this important public health concern in 20 years,” said David Kessler, a former F.D.A. commissioner who has been critical of the agency’s track record on antibiotics. “No one should underestimate how big a lift this has been in changing widespread and long entrenched industry practices.” The change, which is to take effect over the next three years, will effectively make it illegal for farmers and ranchers to use antibiotics to make animals grow bigger. The producers had found that feeding low doses of antibiotics to animals throughout their lives led them to grow plumper and larger. Scientists still debate why. Food producers will also have to get a prescription from a veterinarian to use the drugs to prevent disease in their animals.

FDA guidelines get us on the pathway to the goal of reducing farm antibiotics

US Center for Disease Control and Prevention 2013 (federal agency, part of the Dept. of Health & Human Services) Antibiotic Resistance Threats in the United States, 2013 <http://www.cdc.gov/drugresistance/threat-report-2013/index.html>

The use of antibiotics is the single most important factor leading to antibiotic resistance around the world. Antibiotics are among the most commonly prescribed drugs used in human medicine. However, up to 50% of all the antibiotics prescribed for people are not needed or are not optimally effective as prescribed. Antibiotics are also commonly used in food animals to prevent, control, and treat disease, and to promote the growth of food-producing animals. The use of antibiotics for promoting growth is not necessary, and the practice should be phased out.Recent guidance from the U.S. Food and Drug Administration (FDA) describes a pathway toward this goal.

FDA prescription rule is a big shift toward reducing farm antibiotic use

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Additionally, the agency is requiring that licensed veterinarians supervise the use of antibiotics, effectively requiring farmers and ranchers to obtain prescriptions to use the drugs for their animals. “It’s a big shift from the current situation, in which animal producers can go to a local feed store and buy these medicines over the counter and there is no oversight at all,” said Michael Taylor, the F.D.A.’s deputy commissioner for foods and veterinary medicine.

New FDA rules ban growth promotion antibiotics and require veterinary oversight

Kaitlin Morgan 2016 (Kansas State University Agricultural Experiment Station and Cooperative Extension Service) 25 Feb 2016 “Kansas State University veterinarian: Understand issues surrounding antibiotic resistance” <https://www.ksre.k-state.edu/news/news-stories/2016-news-releases/february/antibiotic-resistance022516.html> (brackets added)

“Guidance 209 was finalized in 2012, and what it said was two things,” [veterinary Doctor Mike] Apley explained. “First, the FDA (U.S. Food and Drug Administration) does not feel that using medically important antibiotics for growth promotion is judicious or consistent with stewardship of the antibiotics, so that practice needs to stop. The pharmaceutical industry agreed to do that voluntarily by removing growth promotion indications from the labels of their products. And, since any extra label use in feed is illegal, this takes away that potential use.”  “Secondly, veterinary oversight over the use of medically important antibiotics in the feed or water of food animals was established, again by the voluntary inclusion of this requirement on the labels for these products.” He said that a veterinary feed directive (VFD) ruling was put in place in hopes that by increasing the involvement of veterinarians, the professional judgment and training of the veterinarian would lead to increased antibiotic stewardship. These VFDs work similarly to prescriptions necessary to use other products in veterinary medicine. The final revised VFD ruling took effect Oct. 1, 2015, and the new labels for in-feed medically important antibiotics will be phased in December 2016. To authorize feed antibiotic use through a VFD, the veterinarian will learn about the producer’s operation, assess the medical challenges and then prescribe antibiotics used in feed according to their medical judgment, Apley said.

A/T “FDA rules are voluntary” – Companies have agreed to comply

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The changes, originally proposed in 2012, are voluntary for drug companies. But F.D.A. officials said they believed that the companies would comply, based on discussions during the public comment period. The two drug makers that represent a majority of such antibiotic products — Zoetis and Elanco — have already stated their intent to participate, F.D.A. officials said. Companies will have three months to tell the agency whether they will change the labels, and three years to carry out the new rules.

A/T “FDA rules won’t work” – Skepticism is unwarranted, they’re already working

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Mr. Taylor, the agency official, said the F.D.A. had detailed what veterinarians needed to consider when they prescribed such drugs. For example, use has to be for animals at risk for developing a specific disease, with no reasonable alternatives to prevent it. “It’s far from being a just-trust-them system,” he said. “Given the history of the issue, it’s not surprising that there are people who are skeptical.” He added that some food producers had already curbed antibiotic use.

A/T “Some people don’t like the FDA rules” – US Centers for Disease Control supports the FDA rules

US Centers for Disease Control & Prevention (CDC) 2014 (federal agency, part of the Dept of Health & Human Services) last reviewed 4 Sept 2014 “Antibiotic Use in Food-Producing Animals” <http://www.cdc.gov/narms/animals.html>

CDC supports the strategy of the U.S. Food and Drug Administration (FDA) to promote the judicious use of antibiotics that are important in treating humans. This strategy recommends that such antibiotics should be used in food-producing animals only under veterinary oversight and only to address animal health needs, not to promote growth. CDC supports FDA’s plan to implement draft guidance in 2013 that will operationalize this strategy.

2. Drug usage is legitimate

That “80% of antibiotics are for animals” statistic is meaningless, and the drugs are different from those used on humans

**Dr. Scott Hurd 2013 (Associate Professor and Director of the Food Risk Modeling and Policy Laboratory at Iowa State University’s College of Veterinary Medicine in Ames, Iowa; former Deputy Undersecretary for Food Safety at USDA) 30 Aug 2013 “**Dr. Scott Hurd: Silliness about Food Animal Antibiotic Use and Thoughts on Kennedy and Kessler’s Comments” <http://kansasagnetwork.com/2013/dr-scott-hurd-silliness-about-food-animal-antibiotic-use-and-thoughts-on-kennedy-and-kesslers-comments/>

Although everyone continues to harp on this 80% number, it is important to understand that number there are many more livestock in the US than there are people; most are larger and need a larger dose. Also critical to this discussion, the types of antibiotics used in humans are much different than those used in animals.

Only 13% of farm antibiotics are sold for growth promotion – the rest prevent or treat sickness

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Thirty years ago, when I started veterinary practice, we were well trained in prudent antibiotic use techniques, as antibiotics are a [valuable on-farm resource](http://hurdhealth.com/2013/03/13/antibiotics-remain-important-for-animal-and-public-health/) to keep animals healthy until arriving at your dinner table.  However, the [companies](http://www.ahi.org/archives/2008/11/2007-antibiotics-sales/)who sell antibiotics report that only 13% of all product sold were sold under the “performance enhancement” or growth promotion label.  The rest is for animals that need medicine to prevent and treat illness!  Therefore, looking at the total volume of product sold [is not meaningful to this debate](http://hurdhealth.com/2013/02/22/how-many-antibiotics-are-actually-used-in-livestock/).

3. FDA mandated withdrawal period

Status Quo regulations ensure drugs given to animals don’t pass to humans. They leave the system before meat is consumed

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 As we [recently](http://hurdhealth.com/2013/08/14/its-all-antibiotic-free-baby/) discussed on this blog, current FDA regulations on drug use require animal treatment to be discontinued in time for the medicine to leave the system (called a withdrawal period).  The USDA, which collects data every year, shows [the withdrawal systems works](http://hurdhealth.com/2013/08/14/its-all-antibiotic-free-baby/) very well. So THERE ARE NO DRUGS ON THE DINNER PLATE.

4. Status Quo policies are working

Multiple Status Quo policies are working together to reduce farm contribution to antibiotic resistance

**Dr. Scott Hurd 2013 (Associate Professor and Director of the Food Risk Modeling and Policy Laboratory at Iowa State University’s College of Veterinary Medicine in Ames, Iowa; former Deputy Undersecretary for Food Safety at USDA) Dec 2013 / Jan 2014 “**Public Health Risk of Antibiotic Use in Food Animals” FOOD SAFETY MAGAZINE <http://www.foodsafetymagazine.com/magazine-archive1/december-2013january-2014/public-health-risk-of-antibiotic-use-in-food-animals/>

Food animal agriculture is working to reduce its contribution to the antibiotic-resistance problem. Farmers and veterinarians use many methods to prevent illness before deploying costly antibiotics. These methods include housing, carefully controlled ventilation, prevention of animal crowding, good nutrition and vaccination. Currently, only a small proportion (13 percent) of all antibiotics sold is used for growth promotion, and that number is declining due to FDA guidance.

HARMS / SIGNIFICANCE

No peer-reviewed scientific studies show sufficient risk from farm antibiotics to justify broad restrictive policies

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Many quantitative risk assessments have examined the risk of antimicrobial-resistant bacteria causing foodborne illness. To date, none of the peer-reviewed scientific quantitative risk assessments published have demonstrated any significant risk of treatment failure in humans caused by current on-farm antibiotic uses in animals. So while the critics of on-farm antibiotic use may have valid concerns, the science suggests, except for a few specific cases, the actual risk does not justify broadly restrictive antibiotic-use policies.

Microscopic impact: 0.3% of antibiotic-resistant deaths were linked to farm antibiotics

Kaitlin Morgan 2016 (Kansas State University Agricultural Experiment Station and Cooperative Extension Service) 25 Feb 2016 “Kansas State University veterinarian: Understand issues surrounding antibiotic resistance” <https://www.ksre.k-state.edu/news/news-stories/2016-news-releases/february/antibiotic-resistance022516.html> (brackets added)

The Centers for Disease Control and Prevention reported that in 2013, an estimated 2,049,442 cases were linked to antibiotic-resistant bacteria that resulted in 23,488 deaths. When [Veterinary Doctor Mike] Apley studied the data, he said he found that out of 17 different antibiotic-resistant microorganisms listed in the report, only two had a defined connection to animal agriculture.  He said this meant that out of the 2 million infections, less than 20 percent have a real potential for resistance to be linked back to animal production antibiotic use. The number of deaths caused by those two microorganisms was less than 0.3 percent of the total deaths caused by antibiotic-resistant microorganisms that year.

Food supply and farm antibiotics are incredibly safe

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“There are some that could be linked to food animal production,” [veterinary Doctor Mike] Apley said, “and that’s where the precautionary principle is used. But, consumers should know that we are serious about the health of our animals, and we’re serious about raising healthy food. When they hear about an outbreak or something that slipped through the cracks, think about this: numerators are easy, but denominators are hard.” Apley means that while hearing about a single case of antibiotic resistance once every six months may be scary, think of how many millions and billions of meals were eaten in that time frame, and there was only one case. “If there are illnesses or a loss of life, that is the last thing we want,” he said. “I’m not downplaying that. But, you look at the big picture, and one out of a billion is a pretty good record. We have an incredibly safe food supply, and we have the vast majority of producers who are committed to raising animals right.”

Harms are exaggerated: Animal antibiotics have only minor impact

NEW YORK TIMES 2015 (journalist Beth Gardiner) 19 Oct 2015 Taking on the Superbugs <http://www.nytimes.com/2015/10/20/business/energy-environment/taking-on-the-superbugs-antibiotics.html>

Dr. Richard Carnevale, vice president for regulatory, scientific and international affairs at the Animal Health Institute, an association of animal drug companies, said antibiotic use in animals made only a small contribution to the wider resistance problem. “In the whole scheme of things, it’s a relatively minor impact from what we can see, and I think that the situation gets a little blown out of proportion,” he said. “Unfortunately, agriculture gets lumped in and blamed with a lot of the problems in humans that really have nothing to do with animals.”

Statistics show no strong link between animal and human antibiotic resistance

Kaitlin Morgan 2016 (Kansas State University Agricultural Experiment Station and Cooperative Extension Service) 25 Feb 2016 “Kansas State University veterinarian: Understand issues surrounding antibiotic resistance” <https://www.ksre.k-state.edu/news/news-stories/2016-news-releases/february/antibiotic-resistance022516.html> (brackets added)

[Veterinary Dr. Mike] Apley said that if he were to boil down the issue of antibiotic resistance in humans related to animal production use of antibiotics, it would go something like this: “If the problem of antibiotic resistance to humans were 3 feet tall, the contribution by antibiotics used in the livestock industry is probably around 4 to 6 inches.” He said the misconception we often see in mainstream media comes from the statement of facts about how many antibiotic-resistant cases are reported each year that seamlessly transition to talk about the use of antibiotics in animal agriculture. But, when he went through the tables and data provided, the statistics did not provide a strong link.

“Resistance” in bacteria is normal, and has nothing to do with residues in meat

**Dr. Scott Hurd 2013 (Associate Professor and Director of the Food Risk Modeling and Policy Laboratory at Iowa State University’s College of Veterinary Medicine in Ames, Iowa; former Deputy Undersecretary for Food Safety at USDA) Dec 2013 / Jan 2014 “**Public Health Risk of Antibiotic Use in Food Animals” FOOD SAFETY MAGAZINE <http://www.foodsafetymagazine.com/magazine-archive1/december-2013january-2014/public-health-risk-of-antibiotic-use-in-food-animals/>

To clarify, when we talk about resistance, we are talking about the bacterium’s ability to grow in media in the laboratory in the presence of selected antimicrobials. These are not the same as residues that are leftover molecules in the [meat](http://www.foodsafetymagazine.com/categories/food-types-category/meat-poultry/)and are not allowed by the U.S. Department of Agriculture (USDA). Additionally, it is important to understand that all bacteria may have some natural ability to grow in the presence of some antimicrobials, and just because a bacterium is resistant to a certain antibiotic does not mean that antibiotic treatment in the patient will fail. Resistance sounds like an evil word, but resistance is actually a normal characteristic of most bacteria. Antibiotic resistance has been documented to have existed for millions of years. Most scientists think resistance is a bacterial survival mechanism for competition. Antimicrobial resistance has been found in many places where antibiotics have never been used, including arctic seals, deep ocean trenches and caves untouched by mammals for over 4 million years. So, clearly, resistance has not developed just due to human use.

SOLVENCY

1. Increased therapeutic antibiotics offset the reductions of the plan

Denmark study found that the ban on non-therapeutic drugs resulted in more sick animals, so they had to then use more antibiotics to cure animals that never would have gotten sick before

Journal of Antimicrobial Chemotherapy 2003. (Mark Casewell, Univ. of London. Christian Friis – Royal Veterinary and Agricultural University, Copehnagen Denmark. Enric Marco – B&M Consulting, Barcelona Spain. Paul McMullin – Poultry Health Services Ltd., Thirsk, North Yorkshire UK. Ian Phillips – University of London.) “The European ban on growth-promoting antibiotics and emerging consequences for human and animal health” 1 July 2003 <http://www.ahi.org/wp-content/uploads/2011/06/Casewell-JAC-Aug-03.pdf>

In Denmark, there was an overall increase in therapeutic antibiotics from 48 tonnes in 1996 to 94 tonnes in 2001. The main antibiotics involved in this increase have been tetracycline, mostly used in pigs, whose usage increased from 12.9 to 27.9 tonnes (a 116% increase), macrolides and lincosamides (7.6 to 14.3 tonnes, 88%) and aminoglycosides (7.1 to 11.9 tonnes, 68%). This has occurred despite attempts to improve other critical aspects of animal husbandry to make up for the loss of the growth promoters.

2. Denmark experience: No net benefit to human antibiotic resistance

Some animals had less antibiotic resistance, but only 1 drug (vancomycin) saw improvements in humans. Other drugs actually got worse

Journal of Antimicrobial Chemotherapy 2003. (Mark Casewell, Univ. of London. Christian Friis – Royal Veterinary and Agricultural University, Copehnagen Denmark. Enric Marco – B&M Consulting, Barcelona Spain. Paul McMullin – Poultry Health Services Ltd., Thirsk, North Yorkshire UK. Ian Phillips – University of London.) “The European ban on growth-promoting antibiotics and emerging consequences for human and animal health” 1 July 2003 <http://www.ahi.org/wp-content/uploads/2011/06/Casewell-JAC-Aug-03.pdf>

The ban has resulted, as intended, in the complete removal of the banned compounds as growth promoters. In Denmark, for example, where over 105 metric tonnes of antibiotics were used for growth promotion in 1996, the usage fell to nil by 2000. This was accompanied by a diminution of resistance to avoparcin, macrolides and virginiamycin among enterococci, studied as an ‘indicator’ species, in food-animal faeces, in Denmark and elsewhere, although vancomycin-resistant Enterococcus faecium has persisted in samples from Danish broilers and pork. Nevertheless, the pool of antibiotic resistance genes in animal faecal enterococci appears, overall, to have diminished.   
Consequences for human infections   
The only attributable effect on humans has been some diminution in vancomycin resistance in enterococci isolated (VRE) from human faecal carriers. However, despite the growth promoter ban and the reduction of carriage of resistant enterococci in animal and human faeces, there has been no diminution in the prevalence of resistant enterococcal infection in humans: little could be expected in Scandinavia where VRE infections have rarely been reported, despite the widespread use since 1975 of avoparcin as a growth promoter. Rather, vancomycin resistance appears to be increasing in enterococcal infections in parts of Europe over the period of the ban, probably in relation to the increased prevalence of methicillin-resistant staphylococcal (MRSA) infection necessitating the increased use of glycopeptides and streptogramins—mimicking the conditions found in the USA where a high incidence of VRE infection has emerged in humans in the absence of the use of avoparcin in animals.

Some drug resistance got worse in the years following the ban in Denmark

Journal of Antimicrobial Chemotherapy 2003. (Mark Casewell, Univ. of London. Christian Friis – Royal Veterinary and Agricultural University, Copehnagen Denmark. Enric Marco – B&M Consulting, Barcelona Spain. Paul McMullin – Poultry Health Services Ltd., Thirsk, North Yorkshire UK. Ian Phillips – University of London.) “The European ban on growth-promoting antibiotics and emerging consequences for human and animal health” 1 July 2003 <http://www.ahi.org/wp-content/uploads/2011/06/Casewell-JAC-Aug-03.pdf>

However, human salmonellosis has not responded to control measures in some parts of Europe, and microbiologically confirmed infections actually increased in prevalence in Denmark in 2001 after they had declined for 3 years. Increased antibiotic resistance in salmonella might be expected in response to the increased use of therapeutic antibiotics in animals consequent to the ban, and there is an increase in tetracycline and sulphonamide resistance in *S. typhimurium* isolates from pigs and from human domestic infections in Denmark in 2001. The case of campylobacter appears to be worse: in Denmark, it has steadily increased in prevalence over the past decade and there is more tetracycline and fluoroquinolone resistance in human than in animal isolates.

DISADVANTAGES

1. Higher food prices

NEW YORK TIMES 2015 (journalist Beth Gardiner) 19 Oct 2015 Taking on the Superbugs <http://www.nytimes.com/2015/10/20/business/energy-environment/taking-on-the-superbugs-antibiotics.html> (Mr O’Neill is Jim O’Neill, a former chief economist at Goldman Sachs and the chair of a British antibiotic study commission)

Most contentious is the use of low levels of antibiotics in healthy animals to encourage them to grow faster. “They can fatten up the animals and get more from them at less cost,” Mr. O’Neill said. “And so until recently it’s been a rough argument with consumers” to restrict the drugs and risk raising [food prices](http://topics.nytimes.com/top/reference/timestopics/subjects/f/food_prices/index.html?inline=nyt-classifier&version=meter+at+3&module=meter-Links&pgtype=article&contentId=&mediaId=&referrer=https%3A%2F%2Fwww.google.com%2F&priority=true&action=click&contentCollection=meter-links-click).

2. Sick, Suffering & Dead animals

Farms lose mass quantities of animals to sickness when they can’t have rapid access to antibiotics

**Dr. Scott Hurd 2013 (Associate Professor and Director of the Food Risk Modeling and Policy Laboratory at Iowa State University’s College of Veterinary Medicine in Ames, Iowa; former Deputy Undersecretary for Food Safety at USDA) 30 Aug 2013 “**Dr. Scott Hurd: Silliness about Food Animal Antibiotic Use and Thoughts on Kennedy and Kessler’s Comments” <http://kansasagnetwork.com/2013/dr-scott-hurd-silliness-about-food-animal-antibiotic-use-and-thoughts-on-kennedy-and-kesslers-comments/> **(the “Wired article” referenced in the quote took the position of the AFF team against farm antibiotics)**

My biggest concern is this broad brush antibiotic bashing will harm my patients, the livestock who feed us. Readers need to understand that farming is like running a day care or nursery. It is full of fresh, fragile babies.  When a pig goes to market, it is only 6 months old and a chicken is only 6 weeks old!  Whether they are raised indoors or out, organic or conventional, they all can get sick.  It is wrong and unethical to withhold that treatment.  At the state fair recently, a turkey grower told me of removing 300 dead birds from his barn in one morning. They had “MG” and he could not get the correct antibiotic.  Drug companies are moving out of the animal health business due to the silly ideas like those in the [Wired](http://www.wired.com/wiredscience/2013/08/fda-commish-change/) article and many others.  Most of the antibiotics used on-farm are because sick and dying animals need medicine, not so the farmer can make a quick buck.

Unethical to deny antibiotics when animals will get sick without them

**Dr. Scott Hurd 2013 (Associate Professor and Director of the Food Risk Modeling and Policy Laboratory at Iowa State University’s College of Veterinary Medicine in Ames, Iowa; former Deputy Undersecretary for Food Safety at USDA) Dec 2013 / Jan 2014 “**Public Health Risk of Antibiotic Use in Food Animals” FOOD SAFETY MAGAZINE <http://www.foodsafetymagazine.com/magazine-archive1/december-2013january-2014/public-health-risk-of-antibiotic-use-in-food-animals/>

Every farm with animals is both a maternity hospital and/or a day care facility. Animals need medicine, just like kids do. Infection can move quickly through a house or barn, just like a day care facility. This becomes a moral and ethical issue. At what point will we deny treatment? It’s not right to withhold veterinary care from animals just for economic gain. Organic or antibiotic-free farms face an ongoing challenge: How long does the farmer wait before treating? Most marketing programs for antibiotic-free require that an animal treated with an antibiotic cannot be sold as antibiotic-free or organic. Treatment of an animal results in a significant financial loss for the producer. So if a farmer is faced with a barnful of coughing and dying pigs, for example, the best treatment is water medication of the entire barn, which would stop the rapid spread of infection.

Denial of antibiotics = animal pain & suffering

Center for Food Integrity 2016 (non-profit organization of farmers, ranchers, food companies, universities, NGO’s, restaurants, retailers and food processors) ANTIBIOTICS DEBATE: LET’S NOT FORGET ABOUT THE ANIMALS 29 Feb 2016 <http://www.foodintegrity.org/2016/02/antibiotics-debate-lets-not-forget-about-the-animals/>

Concern over the use of antibiotics in agriculture might seem like an issue that has surfaced in the last decade or so, but it’s not new. The FDA established a task force of scientists in the 1970s to perform a comprehensive review of the use of antibiotics in animal feeds. As noted by the late Scott Hurd, whose career included serving as Deputy USDA Undersecretary for Food Safety, the controversy seemed to die down or lose momentum after a series of hearings on the issue. Asked why, he said, “We showed it was good for the animals.” Hurd feared that overly restricting antibiotic use could result in failure to treat or delays in treatment that could lead to animal pain and suffering.

3. Infected meat and increased human sickness

Not-using farm antibiotics increases the risk of sick animal meat entering human consumption. Net benefits weigh in favor of antibiotic use

**Dr. Scott Hurd 2013 (Associate Professor and Director of the Food Risk Modeling and Policy Laboratory at Iowa State University’s College of Veterinary Medicine in Ames, Iowa; former Deputy Undersecretary for Food Safety at USDA) Dec 2013 / Jan 2014 “**Public Health Risk of Antibiotic Use in Food Animals” FOOD SAFETY MAGAZINE <http://www.foodsafetymagazine.com/magazine-archive1/december-2013january-2014/public-health-risk-of-antibiotic-use-in-food-animals/>

I am not saying there is zero risk from on-farm antibiotic use. Therefore, if we as a society are to accept that risk, there should be some benefit. Let’s compare this with something we all know well: chlorinated water. The U.S. Environmental Protection Agency originally did not want to approve chlorination, because chlorinated water can increase the risk of cancer. Finally, the agency did approve it because of the benefit derived from avoiding an alternative and greater risk: bacteria, viruses and other pathogens routinely found in water. So we need to evaluate the alternative public health risk for withholding antibiotic use in food animal production.   
People want to consume meat only from healthy animals. This tenet was established in the 1906 Meat Inspection Act. Only healthy animals should enter the food chain. However, it is not just the obviously sick animals that create public health problems. Additionally, animals with subclinical (not visible while alive) residual effects of illness are more likely to cause human foodborne illness. As we harvest animals with some residual or leftover illness effects, we will increase the public health risk from susceptible (nonresistant) bacteria. This connection between subclinical animal health and carcass contamination with foodborne pathogens has been demonstrated in a few studies.

4. Therapeutic usage backfire

Link: When routine use of antibiotics is eliminated, emergency use shoots up because more animals get sick more often. Cross apply Solvency 1

Impact: European study found an increase in therapeutic antibiotics (given to animals after they get sick) raises a hazard to human health for antibiotic resistance. Turn the AFF harms

Journal of Antimicrobial Chemotherapy 2003. (Mark Casewell, Univ. of London. Christian Friis – Royal Veterinary and Agricultural University, Copehnagen Denmark. Enric Marco – B&M Consulting, Barcelona Spain. Paul McMullin – Poultry Health Services Ltd., Thirsk, North Yorkshire UK. Ian Phillips – University of London.) “The European ban on growth-promoting antibiotics and emerging consequences for human and animal health” 1 July 2003 <http://www.ahi.org/wp-content/uploads/2011/06/Casewell-JAC-Aug-03.pdf>

After the withdrawal of these antibiotics, animal welfare has suffered and despite efforts to improve other aspects of husbandry, the veterinary use of therapeutic antibiotics, which are identical to those used in human medicine, has increased, and this constitutes a theoretical hazard to human health in relation to resistance in salmonellae, campylobacters and zoonotic strains of *E. coli.*

5. Masking disadvantage. AFF plan impedes the search for workable solutions

European study finds: Efforts and costs associated with antibiotic ban would have been better spent on studying the problem to find better ways to solve it

Journal of Antimicrobial Chemotherapy 2003. (Mark Casewell, Univ. of London. Christian Friis – Royal Veterinary and Agricultural University, Copehnagen Denmark. Enric Marco – B&M Consulting, Barcelona Spain. Paul McMullin – Poultry Health Services Ltd., Thirsk, North Yorkshire UK. Ian Phillips – University of London.) “The European ban on growth-promoting antibiotics and emerging consequences for human and animal health” 1 July 2003 <http://www.ahi.org/wp-content/uploads/2011/06/Casewell-JAC-Aug-03.pdf>

The efforts and expenditure involved in the imposition of the ban would have been better spent on achieving rational antibiotic use in humans and animals, and on much greater efforts to understand the complex epidemiology of resistant pathogens and resistance genes, as well as adequate risk assessments of both the ban, the ‘precaution’, in parallel with that of the ‘threat’, i.e. the continued use of growth promoters. The evidence suggests that the remaining growth promoting antibiotics still in use in Europe should not be banned until the relationship between growth promotion and prophylaxis is clarified, and the adverse consequences of the current ban can be remedied in Europe as a whole.

SOURCE INDICTMENT

Centers for Disease Control and Prevention (CDC) and Infectious Diseases Society of America

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A very simplistic form of risk assessment is provided by the Infectious Diseases Society of America and the U.S. Centers for Disease Control and Prevention. They provided a list of bacteria of concern for human infectious diseases and resistance. Most of the bacteria listed are unrelated to farms and livestock. These bacteria are either not transmitted through eating meat or are treated by antimicrobials that are not used in food animals (thus the resistance cannot come from on-farm use), are strictly human pathogens or have no otherwise known connection between people and food-producing animals.