

Responsible Antibiotic Use in Poultry Production

School Food FOCUS (FOCUS) and The Pew Charitable Trusts (Pew) have created a partnership to address concerns about the public health impact of antibiotic overuse in food animal production. FOCUS and Pew seek to minimize use of veterinary antibiotics that are identical or closely related to drugs used in human medicine. It is imperative that we protect these medically important drugs, which are the world's most important tools for combating infectious disease. The goal of FOCUS and Pew is to promote industry-wide transparency and accountability of antibiotic use in poultry.

Rationale for responsible use

The efficacy of antibiotics in treating human disease is seriously compromised by their non-medical use in livestock production to promote growth or to compensate for the effects of overcrowded and unsanitary conditions. While any use of antibiotics can potentially contribute to the development of bacterial resistance, the routine use that is common on American farms has hastened this process.¹ Most of the antibiotics sold in the U.S.—70 percent—are used in food animal production.² People who eat meat and poultry and people who do not are equally affected because drug resistant bacteria can spread beyond animals and into produce and the environment. Excessive agricultural use of antibiotics has resulted in a perilous situation that, if not soon contained, will profoundly affect the future well-being of today's children. The World Health Organization warns of a “post-antibiotic era” and acknowledges non-therapeutic use on farms as a culprit.³ Other major health authorities are in strong agreement with this position.⁴ FOCUS and Pew recognize the value of some antibiotic applications, in very limited circumstances, for the treatment of certain illnesses in

food animal production. Responsible antibiotic use helps protect medically important drugs and promotes better animal husbandry.

Chicken in schools

Overuse of medically important antibiotics occurs not just on poultry farms, but throughout the American livestock industry. FOCUS and Pew have partnered to address responsible use of antibiotics in poultry production because of the unique position school districts hold in shifting demand. Chicken is the most popular protein served in schools, offered daily in many cafeterias across the nation. FOCUS school districts, composed of the nation's leading institutional purchasers of food for children, buy tens of millions of pounds of chicken each academic year. As such, they are in a unique position to catalyze poultry production reform.

It is important to note that the poultry currently served in schools is safe and wholesome. The use of antibiotics in raising poultry does not compromise its nutritional value.

The Certified Responsible Antibiotic Use Standard (CRAU)

FOCUS and Pew developed the Certified Responsible Antibiotic Use Standard to minimize the use of antibiotics in poultry production and offer schools a viable way to put poultry raised with responsible antibiotic use on the menu. CRAU is the first USDA-certified standard that allows for minimal use of medically important antibiotics in poultry production—but only with veterinary oversight. Poultry companies interested in meeting CRAU must undergo regular USDA audits to verify compliance.

School Food FOCUS is a national collaborative that leverages the knowledge and procurement power of large school districts to make school meals nationwide more healthful, regionally sourced, and sustainably produced.

Learn more at www.schoolfoodfocus.org

The Pew Charitable Trusts is driven by the power of knowledge to solve today's most challenging problems.

Pew's Antibiotic resistance project supports policies that would spur the creation of new antibiotics, establish stewardship programs to ensure that antibiotics are prescribed only when necessary, and end the overuse of antibiotics in food animals. Learn more at <http://www.pewtrusts.org/en/projects/antibiotic-resistance-project>

Endnotes

¹ Centers for Disease Control and Prevention, *Antibiotic Resistance Threats in the United States*, 2013, 11 (September 2013)

² Food and Drug Administration, Department of Health and Human Services, "2011 Summary Report on Antimicrobials Sold or Distributed for Use in Food-Producing Animals" (September 2014)

³ World Health Organization, "WHO's First Global Report on Antibiotic Resistance Reveals Serious, Worldwide Threat to Public Health" (April 2014)

⁴ These include the Centers for Disease Control and Prevention, the Food and Drug Administration, the American Medical Association, the American Academy of Pediatrics, the American Public Health Association, the American College of Preventative Medicine, the Union of Concerned Scientists, Consumers Union, the Infectious Diseases Society of America, and the Institute of Medicine.

The Certified Responsible Antibiotic Use Standard © FOCUS 2014



School Food FOCUS (FOCUS) and The Pew Charitable Trusts developed the Certified Responsible Antibiotic Use Standard (CRAU) to minimize the use of antibiotics in poultry production and offer schools a viable way to put poultry raised with responsible antibiotic use on the menu. Poultry producers in compliance with CRAU are prohibited from using antibiotics with analogues in human medicine routinely or without clear medical justification. Use of antibiotics with analogues in human medicine must be rare, well documented, and prescribed by a veterinarian. Antibiotics that do not have analogues in human medicine have no further restrictions in this standard, as their use at this time is believed to present minimal risk to public health.

Background

CRAU is based on the following ‘judicious use’ principles of practice that were developed by FDA in cooperation with the American Veterinary Medical Association:

- Emphasis on sound preventive programs, including vaccination and blood testing;
- Documented need for antibiotics and demonstration that no viable alternative exists;
- Veterinarians consulted prior to use of antibiotics;
- Records kept of treatment and outcome;
- Treatment for grouped animals is done at barn/house level. Animals in adjacent housing should not be treated if not exposed;
- Environmental contamination is minimized.
- See *“Judicious Use of Antimicrobials for Poultry Veterinarians”* by Department of Health and Human Services, Food and Drug Administration, Center for Veterinary Medicine

CRAU improves upon the above ‘judicious use’ principles with four amendments to FDA guidelines that explicitly restrict and document antibiotic use on the farm:

1. Medically important antibiotics are used only if prescribed by a licensed veterinarian.
2. A written veterinary report to FOCUS is required whenever antibiotics are used for prophylaxis for more than two consecutive growing cycles. This report must describe the underlying problem(s) and outline a plan of action to correct it if not already resolved.
3. Growers will maintain records of all feed and water additives for each growing cycle for the most current two years.
4. Regular 3rd party verification of antibiotic use documentation and on-site practices by the U.S. Department of Agriculture (USDA) is required.

Restrictions on antibiotic use

1. No administration of antibiotics pre-hatch.
2. Antibiotics with analogues in human medicine can only be used therapeutically. Drug classes that fall into this category include:
 - Aminoglycosides (Spectinomycin, Neomycin)
 - Lincosamides (Lincomycin)
 - Macrolides (Tylosin, Erythromycin, Tilmicosin, Oleandomycin)
 - Penicillin (Penicillin G procaine)
 - Streptogramins (Virginiamycin)
 - Sulfonamides (Sulfanitran, Sulfadimethoxine, Sulfamethazine, Sulfaquinoxaline, Sulfathiazole)
 - Tetracyclines (Chlortetracycline, Oxytetracycline)

Therapeutic vs. Non-therapeutic Use

These terms are widely used and can have different meanings in different contexts. The U.S. Food and Drug Administration (FDA) describes “therapeutic use” broadly, as the treatment, prevention, and control of disease. CRAU defines both terms more specifically.

3. In CRAU, “therapeutic use” refers to antibiotics with analogues to human drugs, i.e. veterinary antibiotics that are identical or very closely related to drugs used in human medicine. CRAU defines “therapeutic use” as follows:
 - The use of antibiotics with analogues to human drugs in poultry diagnosed with bacterial disease; or
 - The use of antibiotics with analogues to human drugs in healthy poultry if there is a medical reason, determined and documented by a licensed veterinarian, to believe that the birds are at significantly increased risk for developing a clinical bacterial infection or after an exposure to infectious bacteria but before the onset of clinical signs or laboratory confirmed disease (prophylaxis).
 - There must be a valid veterinarian-client-patient relationship (VCPR) as defined in 21 CFR 530.3 (i). A valid VCPR is defined as one in which:
 - (a) A veterinarian is responsible for making medical judgments regarding the health of (an) animal(s) and the need for medical treatment, and the client (the owner of the animal or animals or other caretaker) is responsible for following the instructions of the veterinarian;
 - (b) The veterinarian is responsible for having sufficient knowledge of the animal(s) to initiate at least a general or preliminary diagnosis of the medical condition of the animal(s); and
 - (c) The practicing veterinarian is readily available for follow-up in case of adverse reactions or failure of the regimen of therapy. Such a relationship can exist only when the veterinarian has recently seen and is personally acquainted with the keeping and care of the animal(s) by virtue of examination of the animal(s), and/or by medically appropriate and timely visits to the premises where the animal(s) are kept.
 - If antibiotics are used therapeutically as defined above, records of diagnosis, treatment [antibiotic(s) prescribed, dosage, duration, estimated # of animals treated], and outcome must be retained for auditor review.

4. If any antibiotics with analogues to human drugs are used for prophylaxis for more than two consecutive growing cycles, there must be a written veterinary statement indicating the underlying problem(s) and a plan of action to correct the problem(s). If the underlying problem has been resolved, the veterinary statement may indicate that a successful solution has been found that does not include the prophylactic use of antibiotics, and that no further plan of action is needed. In such cases, a written veterinary report of antibiotic use, including documentation of treatment and outcomes that includes culture and sensitivity reports, must be retained for auditor review.
5. Non-therapeutic use of antibiotics with analogues in human medicine is disallowed. CRAU defines “non-therapeutic use” as follows:
 - The use of medically important antibiotics in the absence of microbial disease, known (documented) disease exposure, or a medical reason to believe there is a significant risk for developing a clinical bacterial infection.
 - Non-therapeutic use includes administration of medically important antibiotics for growth promotion, feed efficiency, weight gain, or in the absence of documented exposure.
6. Use of drugs with no analogues in human medicine—aminocoumarins, glycolipids, ionophores, and quinoxalines—is allowed. These permitted veterinary drugs have no relationship to human drugs and are not used in treating human disease. At this time they are the only drugs with no analogues in human medicine that are approved for use by the FDA and currently used by poultry producers.
7. A feed containing a Veterinary Feed Directive drug (a VFD feed) shall be fed to animals only by or upon a lawful VFD issued by a licensed veterinarian in the course of the veterinarian’s professional practice and within the confines of a valid veterinarian-client-patient relationship.

Required management principles

- Emphasis on sound preventive programs, including vaccination and serologic monitoring for disease exposure;
- Treatment for grouped animals is done at barn/house level. Animals in adjacent housing will not be treated if not exposed; and
- Growers will maintain records of all feed and water additives for each growing cycle for the most current two years for auditor review.

Assurance of compliance

CRAU requires USDA as a third-party certifier [e.g. USDA Process Verified Program (PVP) or Quality System Assessment (QSA)] to audit the producer/complex* to ensure compliance with the above restrictions and requirements and to submit audit reports to FOCUS. Entities that are current on the Official Listing of Approved USDA Process Verified Programs for “No Antibiotics Ever” and audited for compliance with CRAU are considered to meet this standard for antibiotic use.

*The relevant processes/facilities subject to audit include hatcheries, feed mills, grow out farms/barns, and slaughter/processing/packaging sites. The audit must document systems for proper identification and segregation of CRAU product through live delivery, slaughter, further processing and packaging.