

Poultry Driven Anti-Microbial Resistance

What is the issue?

\n\n

∖n

- \bullet Last-hope antibiotics like "colistin" are being used indiscriminately by the Indian poultry industry to enhance chicken weight. \n
- This is leading to increased drug resistance and is presently completely legal as regulations are very lax in this domain. \n

\n\n

What is Colistin?

\n\n

∖n

- Medicines and antibiotics are given to the birds to protect them from diseases or to make them gain weight faster, to enhance productivity. \n
- One drug typically given this way is "Colistin", which is used to treat patients critically ill with infections that have become resistant to multiple drugs. \n
- As such drugs are critical to humans, WHO has called restricting their use for animal treatment and demanded a ban on using them as growth promoters.
 - \n TT
- Their continued use in farming as growth enhancers increases the chances of development of bacterial resistance and will render them useless to patients. \n
- The Market Yet, about 2800 tonnes of veterinary colistin were shipped to countries, including Vietnam, India, South Korea and Russia, in 2016. \n
- The total is likely to be higher as the product may be shipped under its brand name rather than being labelled outright as colistin. \n
- Notably, India imports more than 150 tonnes of colistin along with some local production, but U.K. uses less than a tonne a year of colistin in

agriculture.

\n

- Lax Regulations In India, at least five animal pharmaceutical companies are openly advertising products containing colistin as growth promoters. \n
- Companies selling them argue that their products are therapeutic in nature although mild doses can be used at a preventive level (which increases weight).
 - \n
- While most sellers claim that they don't encourage indiscriminate use, branded colistin is easily procurable in India, without even a prescription. \n
- This is completely legal as there is no regulation like in Europe, where colistin can be accessed only on a prescribed by a vet for the treatment of sick animals.

\n

\n\n

What is the science behind?

\n\n

\n

- A colistin-resistant gene was discovered in Chinese pigs in 2015. $\ensuremath{\sc vn}$
- This gene (mcr-1) was found to be transferable within and between bacterial species, which implies that microbes could just acquire from elsewhere. \n
- This is a lot easier and faster way to develop resistance than developing resistance individually, which will complicate disease combat efforts. \n
- The spread Colistin-resistance is contaminating the meat, spreading on the chicken farms, in the surrounding air, to the farm workers and flies etc... \n
- Significantly, mcr variants have already been detected in bacteria from animals and humans in more than 30 countries, spanning four continents. \n
- These revelations have created worldwide panic in the medical community as many multi-drug resistant strands have become very prominent lately. \n
- The consequence Drug resistence is a big threat to global health, food security, and development and makes multiple drugs ineffective. \n
- It renders medical practitioners with no treatment options.

\n

• Currently, the problem is thought to kill 0.7 million people annually worldwide, which is expected to rise to 10 million by 2050 if no action is taken.

\n

- Also, common procedures like joint replacements, Caesarean sections, organ transplants and chemotherapy could also become too risky to carry out. \n
- **The Solution** Calistin should be thought of and treated as an environmental toxin and its export world over as chicken feed, needs to be curtailed.

∖n

 Notably, some have even vouched for a worldwide ban on not just colistin but all antibiotics as growth promoters.

١

\n\n

How does the Indian scenario fare?

\n\n

\n

- Drug Resistance India is the epicentre of the global drug resistance crisis, due to a combination of factors conducive for superbug development. \n
- Unregulated sale of drugs for both human and animal use, unsanitary practices, burgeoning population, and improper drains are a few to name. \n
- Significantly, some of the pharmaceutical companies have also been found to be following substandard sewage treatment practices for their drug excretes. \n

\n\n

∖n

- Poultrty Sector As it is religiously neutral, chicken meat is the favoured non-veg dish in India and the local poultry industry is booming.
- Produced has doubled between 2003 and 2013 and majority of poultry is now produced by commercial farms, that are contracted to major companies. \n
- Meat from supermarkets in the country has been found to contained residues of six antibiotics, suggesting they were being used liberally on farms. \n
- \bullet Experts predict the rising demand for protein will enhance demand for chicken, which will consequently also see enhanced antibiotics in the food. \n

- Notably, the main problem is with the mass medicating of livestock with antibiotics as preventives, which the WHO has already sought to ban. \n

\n\n

What is the way forward?

\n\n

\n

- Using antibiotics as growth promoters has already been banned in the EU and U.S. in 2017 and India too needs to follow suit immediately. \n
- "National Action Plan on Anti-Microbial Resistance" in 2017, did ban the using antibiotics as growth promoters, but no follow up regulatiory action has come.
- \n
- Notably, it has been observed that Indian farmers use antibiotics as a substitute for maintaining nutritious and hygienic growth environments. \n
- While the reason for such attitudes is the perception that such an approach is chaper than the cost of maintainance, which is actually not correct. \n
- Apart from mere regulations, as consumer pressure and awareness holds key to drive in a large scale change in, the masses need to be made aware. \n

\n\n

\n\n

Source: The Hindu

