C ongenital cardiovascular malformations are a serious concern in horses. Clinical signs var y in severity and the age of onset. Typical clinical signs may include stunted growth, exercise intolerance, heart murmur, tachy- and bradycardia. The most frequently reported congenital cardiac anomaly in the horse is the ventricular septal defect (VSD), which makes up 40-50% of all congenital cardiac malformations in the horse. Other defects described in the horse include atrial septal defects and patent foramen ovale.

Atrial septal abnormalities are caused by incomplete separation of the atrial septum, resulting in an opening between the atria. These defects can range from small to large, and can be present at birth or develop later in life. Atrial septal defects are more common in large-breed horses and can be associated with other congenital malformations.

Ventricular septal defects (VSDs) are the most common congenital heart defect and occur when the wall between the left and right ventricles is not completely formed. These defects can be simple or complex, depending on the number of holes present. Simple VSDs involve a single hole or channel, while complex VSDs involve multiple holes or channels that connect the left and right ventricles.

Complex congenital cardiac malformations are those that involve multiple organ systems, and often require surgical intervention. These defects can lead to complications such as heart failure, arrhythmias, and sudden death. It is important to identify these defects early, as many can be managed with medical therapy.

Recent advances in diagnostic tools, such as echocardiography and cardiac catheterization, have improved our ability to diagnose and treat these defects. Early diagnosis and treatment can improve outcomes for affected horses. It is important for equine practitioners to be aware of these conditions and their potential impact on the health and welfare of horses.
The most significant group of emerging human and animal diseases caused by arboviruses include those due to West Nile, Chikungunya, and Zika viruses. They are single stranded RNA viruses which have spontaneous mutation rates as high as one base per single stranded RNA viruses which have spontaneous mutation rates as high as one base per 10 minutes. They are maintained in nature by arthropod vectors. With the exception of African horse encephalitis virus, all arboviruses of medical or medical importance belong to one of the following families: Bunyaviridae, Flaviviridae, and Reoviridae. They are transmitted in nature by biting insects. West Nile virus is a carrier and transmits the virus to other hosts. Some of the most important viral diseases of horses are caused by other arboviruses, mainly belonging to the Flaviviridae and Reoviridae families. The most significant group of emerging human and animal diseases caused by arboviruses include those due to West Nile, Chikungunya, and Zika viruses. ...
**Vector-borne Diseases and the Emergent Threat They Pose**

**Towards-borne disease severity can signify a major threat to the health of humans and domestic and wild animals. Several species in various regions of the world exist; they vary historically. Several vector-borne diseases were frequently regarded as geographically restricted in their distribution and not considered to risk human and animal populations in distant countries or other possible habitats. Major vector-borne diseases in the last 25 years, however, have confirmed that some of security. Vector-borne diseases can be spread by infected ticks, mosquitoes, or flies. In the USA, outbreaks of EHV-1 and EHV-2 have been reported for many years. Evidence of EHV-2 and EHV-5 infection involved single cases of the disease. The latter was associated with a single case in New Mexico (two), and Pennsylvania (one). In the USA (eight outbreaks at various premises). In the USA (eight outbreaks at various premises). There is no evidence of replication of the virus and 494 that were confirmed positive for the virus. In the USA (eight outbreaks at various premises). There is no evidence of replication of the virus and 494 that were confirmed positive for the virus. In the USA (eight outbreaks at various premises).

Infection with equine arteritis virus was confirmed in two outbreaks in California and one in Nebraska. The 823 reported outbreaks affected states—Arizona, Colorado, Nebraska, California and Florida. Three outbreaks of vesicular stomatitis in California and Florida were reported in February brought to a conclusion the 2015 season. The outbreaks were recorded in Colorado. The 823 reported outbreaks affected states—Arizona, Colorado, Nebraska, California and Florida. Three outbreaks of vesicular stomatitis in California and Florida were reported in February brought to a conclusion the 2015 season. The outbreaks were recorded in Colorado.

Rhodococcal related disease was reported as an emerging threat in Australia (one), the United Kingdom, and other sources. The disease is caused by a particular strain of Rhodococcus equi, which is commonly found in horses and other animals. The disease is characterized by fever, respiratory distress, and sometimes death in young foals. Rhodococcus equi is a Gram-positive, aerobic, facultative anaerobic bacteria that is found in soil, water, and animal feces. The bacteria can survive for long periods in the environment, making it difficult to control or eradicate. The disease is diagnosed through blood cultures, respiratory tract samples, or biopsy of affected areas. Treatment is generally supportive, with the use of antibiotics and supportive care. Prevention involves good hygiene practices, isolation of affected animals, and the use of antibiotics in high-risk situations. Rhodococcal related disease is a significant threat to newborn and young foals, and it is important to monitor and control the disease to prevent its spread.

Rabies was recorded in two horses in the USA, as well as in several other countries around the world. Rabies is a highly contagious virus that is transmitted through the bite of an infected animal. The disease is fatal in most cases, with no effective treatment available. Rabies is caused by a virus that infects the nervous system, leading to neurological signs and death. The disease can be prevented through vaccination, which is available for both dogs and horses. It is important to monitor for the disease and implement vaccination programs to control its spread.

**Material published in the United Kingdom**

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*2015 Fourth Quarter Report for Australia

**NATIONAL**

**Mc1 and Other New Resistance Genes: What is the Threat to Horses?**

Identification of the Mc1 resistance gene brings fresh insights into the emerging epidemics of multidrug-resistant bacteria. Mc1 resistance gene is found in a large fraction of bacteria isolated from human and animal patients, and the resistance is mediated by a wide range of genes. The resistance gene is responsible for the production of an enzyme that confers resistance to a variety of antibiotics. This enzyme can be transferred from one bacterium to another, allowing the spread of resistance to multiple antibiotics. Understanding the mechanisms of resistance is essential to develop effective strategies to combat the problem of antimicrobial resistance.

**Vector-borne Diseases and the Emergent Threat They Pose**

**Determinants of identity**

**Antibiotics**

**Progestrone as a Diagnostic Tool during Equine Pregnancy**

Progestrone is a key hormone in the equine cycle. It is responsible for the development and maintenance of the corpus luteum, which is the structure that produces progesterone. Progestrone is also involved in the development of the placenta and the maintenance of pregnancy. It is produced in the ovary and released into the bloodstream, where it acts on the uterus to maintain the pregnancy. Progestrone levels are typically high during the first few months of pregnancy and then decrease as the pregnancy advances. The levels then increase again just before the birth of the foal. Progestrone levels can be measured in the horse's blood or urine to determine the stage of pregnancy. High levels of progestrone are typically seen in early pregnancy, while lower levels are seen in late pregnancy.
**First Quarter 2016**

**Equine Herpesvirus 1 and 4 (EHV-1, -4) related diseases were recorded in Argentina, Australia, Canada and the USA. Respiratory disease caused by EHV-1 was recorded in France (two outbreaks), Switzerland recorded a single case of infection with equine herpesvirus-3 (type A).

Some of the most important viral diseases of more recent occurrence in horses are caused by arboviruses, many belong to the **Togaviridae** family. It is highly likely we will see further threats from the emergence of other arboviruses with epidemic potential. What does identification of the **mcr-1** gene in bacteria from humans and animals indicate about the risk of multidrug resistance? Multidrug resistant Enterobacteriaceae (CPE) and Enterobacter spp. are often associated with extended spectrum beta-lactamase (ESBL) producing bacteria such as **Escherichia coli**, which are resistant to penicillins, cephalosporins, and carbapenems, and are usually acquired in hospital and veterinary settings. These bacteria can be transmitted to humans in foods. With the common use of antibiotics, there is a risk of more effective vector control strategies, active surveillance, and rational use and ability to diagnose drug resistant infections.

Emerging and re-emerging infections are probably endemic to the environment, equine infections are probably endemic to the environment, equine infections are probably endemic to the environment. Reports of multidrug resistance. Multidrug resistant Enterobacteriaceae (CPE) and Enterobacter spp. are often associated with extended spectrum beta-lactamase (ESBL) producing bacteria such as **Escherichia coli**, which are resistant to penicillins, cephalosporins, and carbapenems, and are usually acquired in hospital and veterinary settings. With the common use of antibiotics, there is a risk of more effective vector control strategies, active surveillance, and rational use and ability to diagnose drug resistant infections.

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Abnormal communication between the great vessels. Examples: patent ductus arteriosus.

Tetralogy of Fallot, which consists of a dextrocardia, hypoplastic left heart, the shunting of blood through the channel, and a conus arteriosus (a bridge between the right ventricle and the aorta and pulmonary trunk arise from the right ventricle). These anomalies in the horse. This anomaly is represented by a partial or complete communication between the pulmonary and the aorta with a single vessel being the heart. Ventricular septal defect (VSD) is the most frequent type. pinholes bleed into the ears and the heart. This anomaly is represented by a single ventricle and a double outlet right heart. Both the aorta and pulmonary arteries arise from the right ventricle.

Horse values abnormalities. Examples: trigeminal nerve abnormalities.

Tetralogy of Fallot, which consists of a shunting of blood through the channel, which play a critical role in pumping blood. The heart, the shunting of blood through the channel, and a conus arteriosus (a bridge between the right ventricle and the aorta). This anomaly is represented by a partial or complete communication between the pulmonary and the aorta with a single vessel being the heart. Ventricular septal defect (VSD) is the most frequent type. pinholes bleed into the ears and the heart. This anomaly is represented by a single ventricle and a double outlet right heart. Both the aorta and pulmonary arteries arise from the right ventricle.
**USDA National Veterinary Services Laboratories**

The 10th International Conference on Equine Infectious Disease (ICED 2016) was held in Lexington, Kentucky, from October 31 to November 4, 2016, and was hosted by the University of Kentucky Department of Veterinary Science. The conference, which is held every four years, provides a platform for international equine infectious disease researchers who share recent advances in understanding infectious diseases of equine species. The conference covers topics ranging from virulent organisms and their resistance to conventional treatments to new resistance mechanisms that are emerging. The conference also focuses on the role of the environment in the transmission of infectious diseases and the potential for environmental factors to influence the development and spread of infectious diseases in equine populations. The conference aims to foster collaboration among researchers, clinicians, and policymakers to improve the prevention, diagnosis, and treatment of infectious diseases in horses.

The conference includes a variety of presentations and discussions on the latest research and developments in the field of equine infectious diseases. The conference program includes keynote presentations, workshop sessions, and poster sessions, providing a comprehensive overview of current and emerging research in the field.

The conference also includes a special session on the role of the environment in the transmission of infectious diseases. This session includes presentations on the role of the environment in the transmission of infectious diseases in equine populations, as well as the potential for environmental factors to influence the development and spread of infectious diseases in equine populations.

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**Key Topics Covered**

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  - Viral infections, including equine influenza, equine herpesvirus, and equine respiratory disease
  - Bacterial infections, including equine salmonellosis and equine piroplasmosis
  - Parasitic infections, including equine Strongylus superinfection
  - Fungal infections, including equine histoplasmosis
  - Rickettsial infections, including equine rickettsiosis
  - Protozoal infections, including equine protozoal myelitis
  - Neoplastic infections, including equine nasal adenocarcinoma
  - Endemic diseases, including equine recurrent uveitis

**Target Audience**

- Equine veterinarians
- Equine researchers
- Equine trainers and breeders
- Equine public health officials
- Equine owners and enthusiasts

**Conference Highlights**

- Keynote presentations by leading researchers in the field of equine infectious diseases
- Interactive workshop sessions on the latest research and developments in the field
- Poster sessions featuring research projects from around the world
- Networking opportunities to foster collaboration among researchers, clinicians, and policymakers

The conference provides a unique opportunity for researchers, clinicians, and policymakers to share their latest research findings and to collaborate on future research projects. The conference also provides a platform for the exchange of ideas and the development of new collaborations, which will ultimately lead to improved prevention, diagnosis, and treatment of infectious diseases in equine populations.

**Contact Information**

For more information on the conference, please visit the conference website at [www.icedconference.org](http://www.icedconference.org).

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**Commentary**

The conference focused on the role of the environment in the transmission of infectious diseases. The environment plays a critical role in the transmission of infectious diseases and the potential for environmental factors to influence the development and spread of infectious diseases in equine populations. The conference included presentations on the role of the environment in the transmission of infectious diseases in equine populations, as well as the potential for environmental factors to influence the development and spread of infectious diseases in equine populations.

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**Acknowledgments**

The conference was supported by a grant from the U.S. Department of Agriculture (USDA), with additional support from the University of Kentucky Department of Veterinary Science. The conference organizers would like to express their gratitude to the sponsors for their generous support.

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**Additional Resources**

- [USDA National Veterinary Services Laboratories](http://www.nvsl.usda.gov)
- [University of Kentucky Department of Veterinary Science](http://vetmed.uky.edu)
- [International Conference on Equine Infectious Disease](http://www.icedconference.org)