



Aveve Biochem

Aviagen Arbor Acres

Biomin

Guangdong VTR

Hydro Systems

Invesa

Lubing

Nutriad

Novogen

Perstorp

Orka Food Technologies

Chr Hansen • ISA  
Rotem • Tuffigo Rapidex  
Materias • Vitfoss  
Dr Bata • Grasstech •  
Fienhage • DACS  
Jansen Poultry Equipment  
Intracare

## Chicken infectious anaemia

Chicken infectious anaemia was first recognised at the end of the 1970s in Japan as a disease characterised by aplastic anaemia and generalised lymphoid atrophy and frequently complicated by secondary infections. It has been recognised in chickens and maybe turkeys. The causal virus has a global presence and has also been associated with various syndromes such as haemorrhagic syndrome, anaemia-dermatitis and blue wing disease.

Chicken infectious anaemia virus causes infectious anaemia between 2-4 weeks of age typically causing 10-20% mortality but this can reach 60%.

Chicken infectious anaemia typically occurs in the progeny of flocks which are free of the disease and therefore not giving their progeny any protective maternal antibody. The disease is easily prevented by ensuring that all breeder flocks are positive for chicken anaemia virus antibodies.

No antigenic differences have been seen between Japanese, American and European strains and it is, therefore, accepted that all strains belong to one serotype. Some researchers have proposed the existence of a second serotype (CIAV-7), but others dispute this.

## Aetiology

Chicken infectious anaemia virus is a single DNA stranded circovirus and the only one known in the genus Gyrovirus. This virus is very resistant to many chemicals and some disinfectants are ineffective against this virus and others need to be used at much higher concentrations than those which are normally recommended. Disinfectants that operate at a pH of 2 or less are effective.

Around the world the pathogenicity of this virus does not change much.

## Transmission

Chicken infectious anaemia virus spreads both horizontally and vertically. Horizontal transmission is either direct or indirect and is via the oral route, but infection via the respiratory route may be possible. Virus shedding is via the faeces and possibly the feather follicles.

Vertical transmission occurs when antibody free hens become infected or are inseminated with semen from infected males. After the development of antibodies egg transmission can not be demonstrated but it can go on for some time from breeder flocks in which the infection spreads through slowly. Typically, egg transmission occurs for 3-9 weeks with peak transmission occurring for up to three weeks.

The incubation period for chicken infectious anaemia virus is 8-14 days with clinical signs developing from day 10 and mortality from day 12. Sometimes following vertical transmission a second mortality peak occurs after 4-5 weeks as a consequence of horizontal spread.