What is feline panleukopenia?
- The feline panleukopenia virus (FPV) is a parovirus, that infects all felids as well as raccoons, mink and foxes.
- It can wipe out entire populations of susceptible cats.
- FPV may survive in the environment for several months and is resistant to most disinfectants.

Infection
- Sick cats shed FPV at high concentration in the faeces, and transmission occurs via the faecal-oral route.
- Indirect contact is the most common route of infection, and FPV may be carried by fomites (shoes, clothing), which means indoor cats are also at risk.
- Intrauterine virus transmission and infection of neonates may occur in offspring of non-vaccinated queens.

Clinical signs
- FPV affects cats of all ages, kittens are most susceptible.
- Mortality rates are high, >90% in kittens.
- Depending on the infected cell types, disease signs include:
  - diarrhoea
  - lymphopenia, neutropenia, followed by thrombocytopenia and anaemia
  - transient immunosuppression (due to neutropenia and lymphopenia)
  - abortion
  - cerebellar ataxia (in kittens only)
- Death can occur so rapidly that no clinical signs are observed.

Diagnosis
- FPV antigen is detected in faeces using commercially available tests (e.g. latex agglutination tests).
- Specialised laboratories carry out PCR testing on whole blood or faeces. Attention: after vaccination with attenuated FPV, PCR results may be weakly positive.
- Antibody tests are not recommended, as they do not distinguish between infection and vaccination).

Disease management
- Supportive therapy and good nursing significantly decrease mortality rates.
- In cases of enteritis, parenteral administration of a broad-spectrum antibiotic against gram-negative and anaerobic bacteria is essential to prevent sepsis.
- Feline recombinant interferon omega is likely to be effective.
- Suspected/confirmed cases should be kept in isolation.
- Disinfectants containing sodium hypochlorite (bleach), peracetic acid, formaldehyde, or sodium hydroxide are effective.
- Young kittens with an incomplete vaccination history, colostrum-deprived kittens or unvaccinated cats can be protected for 2-4 weeks by subcutaneous injection of anti-FPV serum.
Vaccination recommendations

- FPV is a core vaccine component: all cats - including indoor cats - should be protected against FPV.
- A minimum of two doses - one at 8-9 weeks of age and a second 3-4 weeks later (at a minimum of 12 weeks of age) should be administered to cats living in low-risk situations. In higher-risk situations starting earlier than 8 weeks can be necessary, followed by vaccine doses at intervals of 3-4 weeks.
- Additional vaccination(s) at 16 (and even at 20) weeks of age is recommended for kittens from environments with a high infection pressure (cat shelters) or from queens with high antibody levels (due to vaccination or field infection).
- The first booster vaccination is given one year later, and then at intervals of three years or more, unless special (e.g. endemic) conditions apply.
- Adult cats with an unknown vaccination history should receive a single injection followed by a booster one year later. Further boosters may be given at intervals of three years or longer.
- Protection starts rapidly after injection of modified live vaccines.
- Modified live vaccines should not be used in kittens < 4 weeks of age, and not in pregnant queens.

- High mortality rate (>90% in kittens)
- Dehydration and vomiting
- Haemorrhagic diarrhoea