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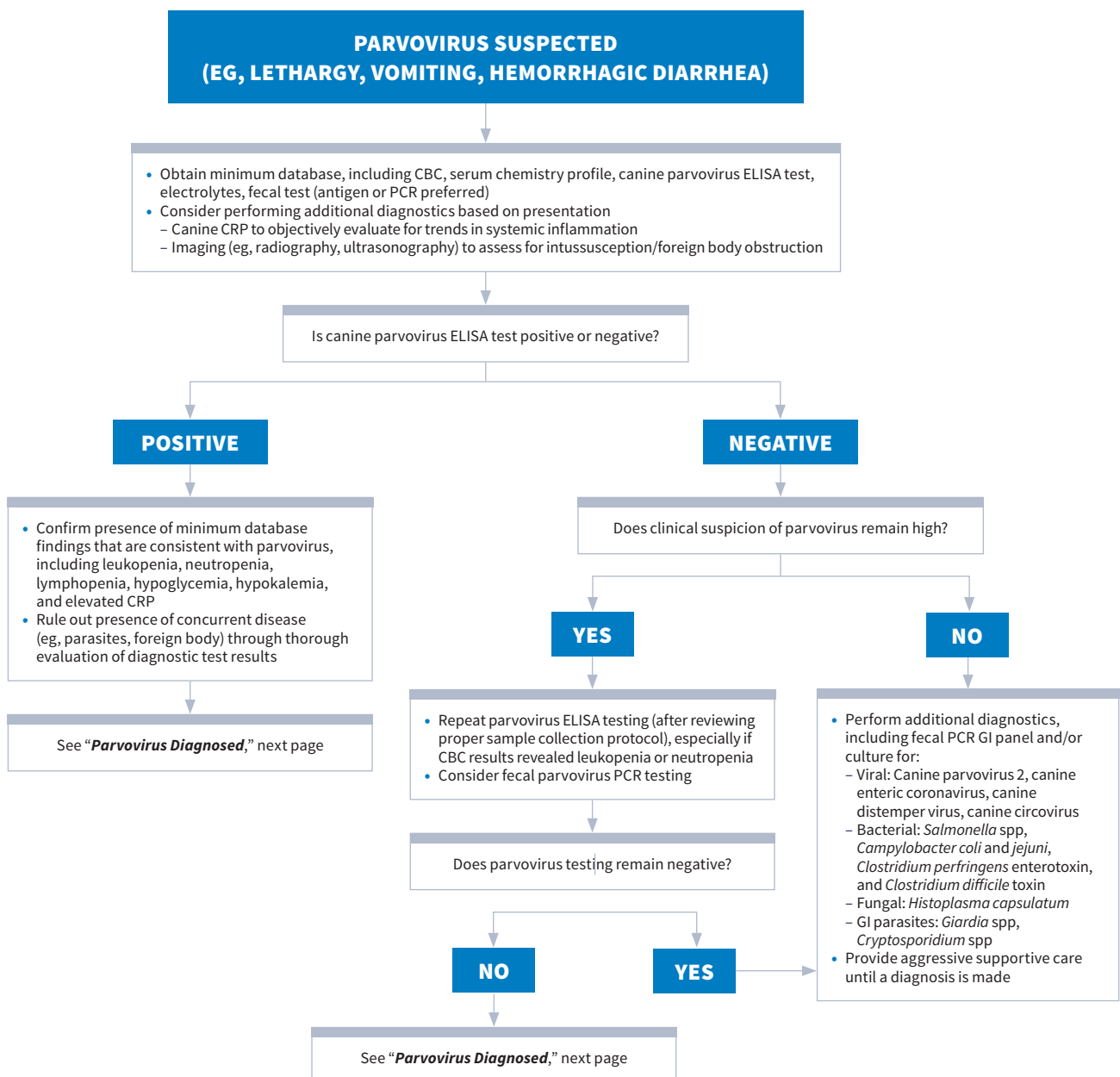
Diagnosis & Treatment of Canine Parvovirus

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PARVOVIRUS DIAGNOSED

Initiate in-clinic treatment

- Administer IV fluids
 - Treat hypovolemia, if present
 - Administer bolus of isotonic crystalloid and repeat as needed until patient is no longer hypovolemic
 - Consider bolus of fresh frozen plasma if hypovolemia does not resolve
 - Treat hypoglycemia, if present, using:
 - 50% dextrose (diluted 1:3)
 - Add 2.5%-5% dextrose to bag of isotonic crystalloids
- Administer broad-spectrum antibiotics (eg, cefovecin, unasyn, cefoxitin) if warranted based on individual case considerations
- Provide GI support
 - Maropitant
 - Ondansetron
 - Metoclopramide
- Administer analgesics
 - Buprenorphine
 - Full mu-opioid receptor agonist (eg, hydromorphone, fentanyl, methadone)
 - NSAIDs should be avoided
- Administer targeted therapy
 - Canine Parvovirus Monoclonal Antibody

Has the patient shown significant improvement?

YES

- Discharge patient with at-home treatment plan
 - SC fluids (30 mL/kg q6h + dehydration replacement over 24 hours)
 - Maropitant
 - If patient is not voluntarily eating, syringe feed calorically dense diet q6h
 - Consider buprenorphine, ondansetron, Karo syrup on gums

NO

- Hospitalize patient for longer-term care
 - Treat persistent dehydration, if present
 - Hospitalize on isotonic crystalloids
 - Account for maintenance, dehydration, and ongoing losses
 - If patient is not eating voluntarily, place a nasogastric tube and feed liquid diet
 - Provide ongoing antibiotic coverage
 - Consider additional treatment as needed
 - N-acetylcysteine
 - Oral recuperation fluids
 - Fecal transplantation

Canine Parvovirus Monoclonal Antibody (CPMA)

- CPMA is conditionally approved by the USDA for treatment of canine parvovirus in dogs 8 weeks of age and older.
- CPMA is administered IV at a dose of 0.2 mL/kg (0.2 mL/2.2 lb) given at the time of diagnosis.
- CPMA is delivered in a unique freezer package that allows for proper storage until the time of use.
- In a treatment efficacy study, dogs receiving CPMA experienced faster resolution of vomiting, inappetence, and lethargy, and no dogs in the study died of CPV.

Clinical Considerations For Parvovirus

- Special consideration must be given to evaluate for concurrent disease in cases of parvovirus, especially GI parasitism.
- Salmonella and sepsis should be strongly considered in ELISA-negative patients with leukopenia.
- Fecal PCR testing should be considered for patients with negative ELISA results.
- Monitoring serial CBC and CRP values may be useful in informing the prognosis and guiding timing of patient discharge.
- In a study, the virus was not detected in the stool of dogs that had recently received the parvovirus vaccine, suggesting false-positive ELISA tests are uncommon.¹

CPMA = Canine Parvovirus Monoclonal Antibody

CRP = C-reactive protein

Reference

1. Schultz RD, Larson LJ, Lorentzen LP. Effects of modified live canine parvovirus vaccine on the SNAP ELISA antigen assay. Paper presented at: International Veterinary Emergency Critical Symposium; September 18-21, 2008; Phoenix, AZ.