**CLIENT EDUCATION HANDOUT**

**Customer Name, Street Address, City, State, Zip code**

**Phone number, Alt. phone number, Fax number, e-mail address, web site**

**Nutrition in Foals**

**Basics**

**Overview**

* Young foals have little energy reserves, become rapidly dehydrated, and may develop low blood sugar if they are unable to nurse regularly, requiring nutritional support
* Certain medical conditions (severe illness, neurologic conditions, or limb abnormalities/injuries) may prevent a foal from being able to nurse
* Foals with colic or diarrhea may be unable to tolerate milk feeding, and require intravenous (parenteral) nutrition until their illness is treated

**Signalment**

* There are no known breed or sex differences for nutritional requirements in foals

**Signs**

The following signs are associated with the need for supplemental nutrition:

* Decreased nursing
* Weight loss or failure to gain weight
* Inability to rise or stand for prolonged periods
* Decreased milk production in the mare
* Diarrhea, colic, abdominal distention

**Causes**

* Severe angular limb deformity or flexural limb deformity
* Neurologic signs (“dummy foal”)
* Orphan foals

**Risk Factors**

* Neurologic dysfunction
* Infection or illness causes severe weakness

**Treatment**

**Appropriate Health Care**

* Tube-feeding, bucket-feeding, or bottle-feeding can be performed with veterinary assistance on the farm or in the hospital setting, although tube- and bottle-feeding must be performed frequently (every 1–2 hours) and there is a risk of aspiration, leading to pneumonia. If there is gastrointestinal dysfunction (colic, diarrhea) requiring intravenous nutrition, hospitalization is required

**Diet**

* Mare’s milk is ideal nutrition if possible
* Mare’s milk replacers; modified cow’s or goat’s milk may also be fed
* Milk pellets, hay, and 16% protein grain may be introduced to the foal, although milk should constitute the majority of the nutritional requirements until 8 weeks of age
* Parenteral nutrition is a form of nutrition given intravenously, which contains carbohydrates, proteins, fats, vitamins, and electrolytes if foals cannot tolerate milk feeding. This type of feeding is performed in a hospital setting, as careful monitoring and specialized equipment is necessary. It is meant to provide a portion of the foal’s nutrient requirements until it is able to tolerate milk feeding

**Medications**

* Enteral nutrition—mare’s milk or milk substitute fed through a feeding tube, bucket, or bottle if the foal is unable to nurse on its own
* Parenteral nutrition—intravenous nutrition administered in foals that cannot tolerate milk feeding (such as cases of diarrhea or colic)
* Lactase tablets may be used if lactose intolerance is suspected (secondary to diarrhea)
* Domperidone may be administered to mares to stimulate milk production if needed

**Follow-Up**

**Patient Monitoring**

* The foal’s body weight should be monitored daily to ensure that nutritional requirements for growth are being met
* Foals on parenteral nutrition should have blood sugar monitoring every 2–4 hours initially, and electrolyte monitoring at least once daily

**Possible Complications**

* Complications of enteral nutrition include colic, abdominal distention, nasogastric reflux, diarrhea, and aspiration pneumonia
* Complications of parenteral nutrition include infection/inflammation of the intravenous catheter site, and alterations in blood sugar or electrolyte values

**Expected Course and Prognosis**

* Foals requiring supplemental nutrition are supplemented until the primary disease or abnormality resolves or can be treated. Supplemental nutrition may be required for 24 hours or as long as 3–5 days, depending on the severity of disease

**Key Points**

* Neonatal foals become severely dehydrated and develop low blood sugar within hours of being unable to nurse, requiring assistance or supplemental feeding
* Foals with colic or diarrhea may require “gastrointestinal rest” during treatment of their condition, requiring alternative nutritional supplementation (parenteral nutrition)



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