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Ensemble pour soutenir les familles... un jour à la fois!

Together to support families... one day at a time!

PARENTERAL NUTRITION (TPN): SUPPLEMENTAL CLINICAL DATA FORM

Name

Summary of the child's main diagnoses

Service request

Given this child's requirements for care as described below and the consensus recommendations of an expert committee representing the four Quebec university hospital centres with a pediatric mission (document available upon request), we recommend _____ homecare hours of support per week.

Required care

Parenteral nutrition hours/day, days/week

Preparation and administration of medications

Enteral nutrition

Oral nutrition

Enterostomy care

Other care

Parenteral nutrition (PN)

Direct child surveillance especially in young children to ensure that the child does not pull out the central line and to minimize the risk of strangulation with IV tubing.

Central venous catheter care (CVC): The parent must monitor the appearance of the catheter site, check that the dressing is clean and dry and verify that the tubing is not compressed before, during (at least 2 times) and after the parental nutrition is administered or at least once a day, if the catheter is not in use.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 to 2 people (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended method of care: <https://complexcareathomeforchildren.com/parenteral-nutrition/monitoring-of-the-catheter-site/>

Preparation and administration of parenteral nutrition (PN): Most of the time, home PN is started in the evening and runs overnight, allowing the child to be disconnected from the pump during the daytime. The PN bag is prepared in advance of administration and includes: PN bag inspection (is intact, no leakage, no extra air bubbles), addition of vitamins or other additives, mixing of the TPN solutions and connecting the tubing to the bag. The parent must prepare the pump for administration, verify that the programmed parameters match the child's prescription, changing the parameters when required, install the pump tubing and prime the tubing. Before connecting the tubing and starting administration of the PN, the parent must flush (irrigate) the central line. These steps take approximately 45 to 60 minutes.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 to 2 people (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended methods of care: <https://complexcareathomeforchildren.com/parenteral-nutrition/preparation-of-the-parenteral-nutrition-solution-and-addition-of-additives/> and <https://complexcareathomeforchildren.com/parenteral-nutrition/catheter-irrigation/> and <https://complexcareathomeforchildren.com/parenteral-nutrition/administration-of-parenteral-nutrition-solution/>

Disconnecting the parenteral nutrition: Disconnection is done at the end of the administration of the parenteral nutrition solution. The central line must be irrigated before locking with the prescribed solution. To disconnect the parenteral nutrition, irrigate the central line and lock the central line takes 5 to 15 minutes.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 to 2 people (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended methods of care: <https://complexcareathomeforchildren.com/parenteral-nutrition/administration-of-parenteral-nutrition-solution/> and <https://complexcareathomeforchildren.com/parenteral-nutrition/catheter-irrigation/>

Respond to the child's needs at night related to administration of parenteral nutrition: The parent must verify pump function and parenteral nutrition administration including verification that the parenteral nutrition bag is gradually emptying, the central line site and dressing are intact; at least 2 times during the infusion, in addition to responding to pump alarms. In the event of a pump alarm, the parent must identify the cause and solve the issue.

Troubleshooting: The parents have been taught how to evaluate and solve common problems with parenteral nutrition administration at home.

Preparation and administration of medications

Medications: **by mouth** **by feeding tube:** The time required for medication preparation depends on the number and type of medications. On average, the parent must prepare 4 to 6 different medications per day. Preparation takes approximately 30 minutes/day.

Depending upon this child's underlying conditions, we estimate:

- Number of medications:
- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 person

The time required for medication administration also depends upon the child's age and ability to cooperate with the care. If the medications are given by feeding tube, the parent must flush the tube before and after each medication administration. The time

required depends upon the number of medications required. On average, medication administration via a feeding tube route takes 5 to 10 minutes.

Depending upon this child's underlying conditions, we estimate:

- Number of medications:
- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 to 2 people (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended method of care:

Intravenous medications: Intravenous medications are usually prepared for administration by a pharmacist. To administer intravenous medications, the parent must irrigate the CVC, connect the medication bag and start the infusion. Once the medication is administered, the parent must disconnect the tubing, irrigate and lock the CVC with the prescribed medication. These steps take approximately 10 to 30 minutes. The time required for the medication infusion depends upon the volume and type of medication.

Depending upon this child's underlying conditions, we estimate:

- Number of medications:
- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 to 2 people (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended method of care:

Enteral nutrition

Direct child surveillance: The parent must supervise the child (especially young children or those with neurological impairment) to ensure that the child does not dislodge the feeding tube. During enteral feeds, the child should be under direct supervision.

Care of the feeding tube: The integrity of the skin around the feeding tube must be reviewed daily. The skin should be clean, dry and not irritated. The site should be cleaned, on average 1 to 2 times per day and more often if required. To keep the skin dry, a compress may be placed around the feeding tube; this should be changed if wet or soiled. If the child has a nasal tube, the parent should ensure that the dressing that secures the tube in place is intact and changed as needed. Care of the skin takes, on average, 5 to 15 minutes per day.

Depending upon this child's underlying conditions, we estimate:

- Type of feeding tube:
- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 person (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended method of care:

The placement of the feeding tube should be verified after inserting the tube, before each use and as needed.

The feeding tube should be flushed at least twice per day if not in use, before and after each feed, before and after each medication administration and at least once every 4 hours for continuous feeds.

If the feeding tube is a button, the parent must connect an extension tubing for administration. If the button has an internal balloon, the volume of water must be verified at least once weekly, as per the attending healthcare team.

Preparation of the enteral feed: There are many different types of nutritional formulas. Some are "ready to feed" and others require preparation. Some children require special additives or medications, which increases the complexity of the preparation and the time required. On average, preparation of enteral feeds takes 20-30 minutes/day.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 person

Feeding administration: Enteral feeds may be continuous, intermittent or a combination of continuous and intermittent via syringe (manual delivery), by gravity or by pump. The time required for preparing the feeding administration depends upon the method used. The feeding tube must be flushed before and after each feed and at least every 4 hours for continuous feeds. Most often, enteral feeds are given intermittently during the day over a one hour period and continuously at night.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care:
- Total time/day:

- Number of caregivers required: 1 person (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended method of care:

Respond to the child's needs at night: If the child is receiving continuous feeds overnight, the parent must refill the feeding bag every 4 hours, flush the feeding tube every 4 hours, and respond to pump alarms. In the event of a pump alarm, the parent must determine the cause and solve the issue.

Troubleshooting: The parents have been taught how to evaluate and solve common problems with enteral feeding administration at home.

Oral nutrition

Oral stimulation: Many children may eat by mouth however they may require a lot of stimulation due to pre-existing oral aversion behaviors and/or impaired oral motor functions. Mealtimes can be at least twice as long as for a healthy child

Time per meal on average, between 30 to 45 minutes/meal; 10 to 15 minutes/snack.

Frequently, the child will also have an individualized plan for oral stimulation and development with daily exercises as recommended by an occupational therapist, nutritionist or another healthcare provider.

Depending upon this child's underlying conditions, we estimate:

Enterostomy

Direct child surveillance: The parent must supervise the child (especially young children or those with neurological impairment) to ensure that the child does not dislodge the ostomy device.

Changing the collection device: The ostomy collection device must be changed every 3 to 7 days or more often if required. This involves: care of the skin surrounding the stoma, preparing and installing the collection device. This process takes approximately 20 to 30 minutes.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care:

- Total time/day:
- Number of caregivers required: 1 to 2 people (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended method of care: <https://complexcareathomeforchildren.com/enterostomy-care/changing-the-collection-device/>

Emptying the bag of the ostomy device: The collection bag of the ostomy must be regularly emptied to prevent overflow of fecal contents. Emptying the bag takes approximately 2 to 5 minutes.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care:
- Total time/day:
- Number of caregivers required: 1 to 2 people (a 2nd person may be needed if the child is young and/or unable to stay still during care)
- Recommended method of care: <https://complexcareathomeforchildren.com/enterostomy-care/emptying-the-bag-of-the-ostomy-device/>

Troubleshooting: The parents have been taught how to evaluate and solve common problems related to ostomy care.

Other

Changing diapers, bedding and clothing: As these children frequently have severe diarrhea, the parent must change diapers frequently, including overnight. Changing the child's clothing and bedding is required often and takes approximately 5-25 minutes.

Depending upon this child's underlying conditions, we estimate:

- Frequency of care: as needed
- Total time/day:
- Number of caregivers required: 1 person

Skin care: Total time/day:

Record keeping of diarrhea and vomiting

Surveillance for state of hydration

Maintenance of equipment and supplies: Total time per day:

Inventory of supplies, re-ordering as required. Total time:

Delivery of supplies

Signature:

Date:



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Name

Care Planning Schedule – To be completed by the professional

	Parenteral nutrition	Enteral nutrition	Preparation and administration of medications	Enterostomy care	Oral nutrition	Care related to daily activities
00:00 06:00						
06:00 12:00						
12:00 18:00						
18:00 24:00						