Starting Parenteral Nutrition (PN) in Paediatric Oncology

What is the indication for starting PN?

Make an eQuest referral to the Nutrition support team?

Is there central IV access?

Take PN bloods: Sodium, Potassium, Magnesium, Calcium, Phosphate, Liver Function Tests, GGTs, renal function and blood glucose

PN should only be considered when it is not possible to meet an individuals requirements by the enteral (NG, NJ, gastrostomy, gastrojejunostomy) or oral route.

For example, when:

- Gut failure/malabsorption/poor gut functioning (vomiting/diarrhoea)
- Typhiltis or mucositis
- Intestinal obstruction
- Inability to gain enteral access

and

Inadequate enteral intake is anticipated to last > 5days.

PN requires central access.

- Does the concurrent administration of IV medications allow space for PN administration?

- Discuss plan with Dietitian and Pharmacist
- Measure height, weight, BMI
- Calculate nutritional requirements including calories, protein & fluid.

- Is there a risk of re-feeding syndrome?
- (UHS re-feeding guidelines accessible here)
- Is there a fluid restriction/fluid balance?
- Are electrolytes already prescribed PO/IV?
- What IV fluids have been administered in previous 24 hours.
- Is any nutrition being administered enterally?

Checklist once PN ordered by Dietitian /Pharmacist

- ❑ Prescribe PN on inpatient e-prescribing chart
- ❑ Daily blood glucose monitoring
- ❑ Daily biochemical monitoring until PN prescription is stable, then frequency can be reduced.
- ❑ Weekly review at the Nutrition Support Team MDT

For patients who require PN for more than 1month

- □ Monthly trace elements including selenium, zinc, copper and manganese (aim to measure when CRP level normal)
- □ Consider switching lipid to SMOFlipid®
- □ Monthly triglyceride level
- □ Monthly vitamin levels including Vitamin A,D, E, Folate and B Vitamins
- □ Check urine electrolytes

For all long term PN patients: discuss management with Nutrition Support Team