**PEER ASSISTED LEARNING ACTIVITY: Re-Feeding Syndrome**

**(B & C PLACEMENT)**

### **NUTRITION AND DIETETIC SERVICES**

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**Aim**

* To be able to interpret when a patient is at low, medium, or high risk of re-feeding syndrome (RFS)
* To be able to Interpret biochemistry parameters in RFS, relevant to dietetic practice.
* To be able to apply clinical, biochemical, and nutritional findings, to develop a suitable dietetic treatment whilst minimising the risk of RFS
* To develop an understanding on suitable electrolyte, vitamin and mineral replacement in re-feeding syndrome

**Process**

(Biochemistry PAL should be completed prior to undertaking this PAL)

* Work together with your student peer(s).
* Gather information on the normal adult blood biochemical reference ranges used in this NHS Trust and complete table 1 (below).
* Gather information on the typical medications used in the management of RFS and complete table 2 (below).
* Using the information, you have gathered, consider and then discuss between yourselves the possible answers to the case study questions provided – remembering to interpret the biochemistry results provided in each case.
* Using all information, you have gathered to devise a suitable treatment plan
* The supervising dietitian will then facilitate a general discussion with you about what was learnt, highlighting any missing information.

**Suggested time-scale**

A morning or afternoon

*The information sheet developed during this exercise can then be used throughout your placement.*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | K1 | C1 | CP1 | CP2 | CP3 | P1 | P2 |
| Insert 🗸 (yes, met this time), NI (needs improvement) or  NA (not applicable) | | |  |  |  |  |  |  |  |
|  |  | Supervisor’s signature: Date: | | | | | | | |

**Placement capabilities demonstrated:** To be completed by supervising dietitian

1. *What is Re-feeding syndrome (RFS)?*
2. *How do you identify someone who is at risk of RFS? Are there any patient groups at particular risk?*

*Table 1: Normal adult blood biochemical reference ranges relevant to re-feeding syndrome (use local NHS Trust values)*

|  |  |
| --- | --- |
| Blood Parameter | Normal reference value |
| Sodium (mmol/l) |  |
| Potassium (mmol/l) |  |
| Calcium (mmol/l) |  |
| Corrected calcium (mmol/l) |  |
| Phosphate (mmol/l) |  |
| Magnesium (mmol/l) |  |

*Table 2: Frequently used medication used in the treatment of Re-feeding syndrome*

|  |  |  |  |
| --- | --- | --- | --- |
| Medication | Type of Medication | Typical Dosing | Typical Route of Administration |
| Thiamine |  |  |  |
| Vitamin B Co-Strong |  |  |  |
| Vigranon |  |  |  |
| Pabrinex |  |  |  |
| Forceval |  |  |  |
| Sando K |  |  |  |
| Phosphate Sandoz |  |  |  |
| Magnesium Aspartate |  |  |  |
| Calcium carbonate |  |  |  |
| Potassium chloride |  |  |  |
| Phosphate polyfuser |  |  |  |
| Magnesium sulphate |  |  |  |
| Calcium gluconate |  |  |  |

***Case Study***

***Patient X****, 72 year old male*

***PC:*** *Pyrexia, SOB & delirium*

***PMH:*** *T2DM, Erosive gastritis, HTN*

***Weight on admission 9 days ago*** *– 78kg, Height 1.79m, BMI -----*

***Weight today*** *– 73kg, Height 1.79m, BMI ----- Weight loss -----*

***Biochemistry:***

|  |  |
| --- | --- |
| Blood Parameter | Value (mmol/l) |
| Potassium (mmol/l) | 3.2 |
| Calcium (mmol/l) | 2.33 |
| Corrected calcium (mmol/l) | 2.44 |
| Phosphate (mmol/l) | 0.58 |
| Magnesium (mmol/l) | 0.6 |

***Food Chart***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day | Breakfast | Lunch | Evening Meal | Supper |
| Monday | x1 toast - all | ½ curry, ¼ yoghurt | ¼ salad s/wich | nil |
| Tuesday | ¼ porridge | ¼ Shep pie | refused | ½ biscuit |
| Wednesday | ¼ porridge | refused | refused | ¼ mousse |
| Thursday | refused | ¼ jelly | ½ yoghurt | nil |
| Friday | refused | refused | ½ yoghurt | ½ toast |

1. *What might be your nutritional intervention? (Discuss and justify a suitable dietetic aim and plan)*

*Aim:*

*Plan:*

1. *What electrolyte, vitamin and mineral intervention might you recommend to the medical team and why?*
2. *What would your follow-up include?*

***Weight on admission 14 days ago*** *– 78kg, Height 1.79m, BMI -----*

***Weight today*** *– 71kg, Height 1.79m, BMI ----- Weight loss -----*

***Biochemistry:***

|  |  |
| --- | --- |
| Blood Parameter | Value (mmol/l) |
| Potassium (mmol/l) | 2.8 |
| Calcium (mmol/l) | 1.94 |
| Corrected calcium (mmol/l) | 2.13 |
| Phosphate (mmol/l) | 0.52 |
| Magnesium (mmol/l) | 0.48 |

***Food Chart***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Day | Breakfast | Lunch | Evening Meal | Supper |
| Saturday | refused | ¼ main | Few spoon main | nil |
| Sunday | ¼ porridge | refused | refused | ½ biscuit |
| Monday | ½ toast | refused | refused | ¼ mousse |
| Tuesday | refused | ¼ jelly | ¼ s/wich | nil |
| Wednesday | refused | refused | ½ yoghurt | ½ toast |

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*Aim:*

*Plan:*

1. *What electrolyte, vitamin and mineral intervention might you recommend to the medical team and why?*
2. *What would your follow-up include?*