|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PATIENT CARE ORDERS  |  |  | | --- | --- | | Weight (kg) | Adverse Reactions | |  |  | | **Please use black ink ballpoint pen only and press firmly to make copy** | | | **DRAFT #11 – 2008 Nov 18** | |
| ORDER AND SIGNATURE | | **TRANSCRIPTION** |
| **ICU GASTRIC AND INTESTINAL FEEDING ORDERS (ADULT)** | |  |
| Page 1 of 1 | |
| 1. CXR to confirm initial tube placement. ***OR***   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tube placement confirmed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   *(gastric, intestinal) (e.g. radiographically, endoscopically)* 2. Begin 24 hour volume-based feeds. After initital tube placement confirmed, start Pepatmen 1.5. Totlal volume to receive in 24 hours is 17ml x weight (kg)= <write in 24 target volume>. Determine initial rate as per Volume Based Feeding Schedule. Monitor gastric residual volumes as per Adult Gastric Flow Chart and Volume Based Feeding Schedule .   OR  Begin Peptamen 1.5 at 10 mL/h after initial tube placement confirmed. Hold if gastric residual volume >500 ml and ask Doctor to reassess. Reassess ability to transition to 24 hour volume-based feeds next day. *{Intended for patient who is hemodynamically unstable (on high dose or escalating doses of vasopressors, or inadequately resuscitated) or not suitable for high volume enteral feeding (ruptured AAA, upper intestinal anastomosis, or impending intubation)}*  OR  NPO. Please write in reason: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_. *(only if contraindication to EN present: bowel perforation, bowel obstruction, proximal high output fistula. Recent operation and high NG output not a contraindication to EN.)* Reassess ability to transition to 24 hour volume-based feeds next day.   1. Start maxeran 10 mg IV q 6 h , reassess next day or   Start maxeran 5 mg q6h IV if renal dysfunction, reassess next day   1. Protein supplement Beneprotein® 14 grams mixed in 120 mls sterile water adminstered bid via NG (hold in renal failure if not on dialysis or if has hepatic encephalopathy), reassess next day. | |
| 1. Monitor nutritional adequacy (volume of EN rec’d in last 24 hour period/prescribed 24 hour volume) daily and report per cent intake on daily rounds. | |
| 1. Lytes and Ca, Mg, Phos q12h x 72 hours then as per ICU admission orders   q Monday and Thursday: urea and prealbumin.   q Monday: 24 hour urine for urea and creatinine clearance (start Sunday, complete Monday). | |
| 1. Flush tube with at least 10 mL sterile water q4 h during feedings, at beginning and end of feedings, after aspiration for residuals, and before and after medication administration. | |
| 1. Declog tube with pancrelipase 8,000 units mixed with crushed sodium bicarbonate 500 mg in 5 mL warm water prn if unable to flush. | |
| Signature & Designation: | |
| Printed Name: | |
| Date (YYYY/MM/DD) & Time (HHMM): | |

Adult ICU

Gastric Feeding

Flow Chart



Place feeding tube or use existing gastric drainage tube.

X-ray to confirm placement (as required)

Attempt to elevate head of bed to 45° unless contraindicated.

Start feed at initial rate ordered.

Measure gastric residual volumes q4h.

Is the residual volume greater than 250 mL?

NOTE: Do not aspirate small bowel tubes.

Replace 250 mL of aspirate. Reduce rate by 25 mL/h to no less than 10 mL/h.

Step 1: Consider adding erythromycin 200 mg IV q12h (may prolong Qtc.). If 4 doses erythromycin ineffective, go to Step 2.

Step 2: Consider small bowel feeding tube placement and discontinue motility agents thereafter.

Was the residual volume greater than 250 mL the last time it was measured?

Replace aspirate. Set rate of EN based on flow chart A

Has the prescribed volume/day been delivered?

Replace aspirate.

Reassess motility agents after feeds tolerated at target rate for 24 hours.

Yes

Yes

No

Yes

No

***Guidelines***

* The above diagram and attached chart is meant to be a guideline and should not replace common clinical sense. If you are uncomfortable with what is being suggested, discuss with dietitian and/or attending physician or ICU fellow.
* The maximum hourly rate of infusion should be 200 ml/hr.
* If a change is made to the feeding formula, prescribe amount of EN solution to be delivered in remaining part of day and amount to be delivered in next 24 hr period. Prescription should read:

“Start {insert feeding formula} as per volume based protocol. 24 goal volume= {insert target volume}”

* All future EN orders need to clearly state the solution and the amount to be delivered in a 24 hr period.
* At the change of shift, double check the math to be sure patient is on target to receive 24 hr amount of calories. If necessary, feel free to change the rate to do catch up by end of shift rather than leave it for next shift.
* Do not include EN amounts in TFI. TFI refers to crystalloid or IV intake only.

Volume Based Feeding Schedule

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Goal Total  ml formula  per 24 hrs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hours Remaining in day to feed 24 hour volume | | | | | | | | | | | | | | | | | | | | | | |  |
| **24** | **23** | **22** | **21** | **20** | **19** | **18** | **17** | **16** | **15** | **14** | **13** | **12** | **11** | **10** | **9** | **8** | **7** | **6** | **5** | **4** | **3** | **2** | **1** |
| 2400 | 1000 | 104 | 109 | 114 | 120 | 126 | 133 | 141 | 150 | 160 | 171 | 185 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 2280 | 95 | 99 | 104 | 109 | 114 | 120 | 127 | 134 | 143 | 152 | 163 | 175 | 190 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 2160 | 90 | 94 | 98 | 103 | 108 | 114 | 120 | 127 | 135 | 144 | 154 | 166 | 180 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 2040 | 85 | 89 | 93 | 97 | 102 | 107 | 113 | 120 | 128 | 136 | 146 | 157 | 170 | 185 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1920 | 80 | 83 | 87 | 91 | 96 | 101 | 107 | 113 | 120 | 128 | 137 | 148 | 160 | 175 | 192 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1800 | 75 | 78 | 82 | 86 | 90 | 95 | 100 | 106 | 113 | 120 | 129 | 138 | 150 | 164 | 180 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1680 | 70 | 73 | 76 | 80 | 84 | 88 | 93 | 99 | 105 | 112 | 120 | 129 | 140 | 153 | 168 | 187 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1560 | 65 | 68 | 71 | 74 | 78 | 82 | 87 | 92 | 98 | 104 | 111 | 120 | 130 | 142 | 156 | 173 | 195 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1440 | 60 | 63 | 65 | 69 | 72 | 76 | 80 | 85 | 90 | 96 | 103 | 111 | 120 | 131 | 144 | 160 | 180 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1320 | 55 | 57 | 60 | 63 | 66 | 69 | 73 | 78 | 83 | 88 | 94 | 102 | 110 | 120 | 132 | 147 | 165 | 189 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1200 | 50 | 52 | 55 | 57 | 60 | 63 | 67 | 71 | 75 | 80 | 86 | 92 | 100 | 109 | 120 | 133 | 150 | 171 | 200 | 200 | 200 | 200 | 200 | 200 |
| 1080 | 45 | 47 | 49 | 51 | 54 | 57 | 60 | 64 | 68 | 72 | 77 | 83 | 90 | 98 | 108 | 120 | 135 | 154 | 180 | 200 | 200 | 200 | 200 | 200 |
| 960 | 40 | 42 | 44 | 46 | 48 | 51 | 53 | 56 | 60 | 64 | 69 | 74 | 80 | 87 | 96 | 107 | 120 | 137 | 160 | 200 | 200 | 200 | 200 | 200 |
| 840 | 35 | 37 | 38 | 40 | 42 | 44 | 47 | 49 | 53 | 56 | 60 | 65 | 70 | 76 | 84 | 93 | 105 | 120 | 140 | 168 | 200 | 200 | 200 | 200 |
| 720 | 30 | 31 | 33 | 34 | 36 | 38 | 40 | 42 | 45 | 48 | 51 | 55 | 60 | 65 | 72 | 80 | 90 | 103 | 120 | 144 | 180 | 200 | 200 | 200 |
| 600 | 25 | 26 | 27 | 29 | 30 | 32 | 33 | 35 | 38 | 40 | 43 | 46 | 50 | 55 | 60 | 67 | 75 | 86 | 100 | 120 | 150 | 200 | 200 | 200 |
| 480 | 20 | 21 | 22 | 23 | 24 | 25 | 27 | 28 | 30 | 32 | 34 | 37 | 40 | 44 | 48 | 53 | 60 | 69 | 80 | 96 | 120 | 160 | 200 | 200 |
| 360 | 15 | 16 | 16 | 17 | 18 | 19 | 20 | 21 | 23 | 24 | 26 | 28 | 30 | 33 | 36 | 40 | 45 | 51 | 60 | 72 | 90 | 120 | 180 | 200 |

***Nursing instructions for Physician ordered 24 hour Volume-Based Enteral Feeding. Example:***

* Order for volume based enteral feeding will be total volume goal for 24 hours. 24 hour period goes from 7 am to 7 am each day.
* If the total volume ordered is 1800 mL the hourly amount to feed is 75 mL/hour. If patient was fed 450 mL of feeding (6 hours) and the tube feeding is on “hold” for 5 hours, then subtract from goal volume the amount of feeding patient has already received.

**Volume Ordered per 24 hours 1800 mL – Tube feeding in (current day) 450 = Volume of feeding remaining in day to feed**

1800 - 450 = 1350 mL remaining to feed

* Patient now has 13 hours left in the day to receive 1350 mL of tube feeding.
* Check the chart for the new goal rate remaining and the number of hours remaining for the new amount of feeding to feed per hour. Select the goal rate closest to volume needed.

***For example:***1350 mL remaining to feed in 13 hours. Go to chart and select volume closest to volume needed. In this example it would be 1320. Next go to column 13 (the number of hours remaining to feed) and the amount of feeding to provide will be 102 mL/hour.

In this example the patient will receive a total volume of 1326 mL for the remaining hours in the day.

Round up to the nearest hour and rate!

Please contact dietitian for your station if you have any questions

***Important Nursing Assessment***

Volume based feeding should be used with caution. Nursing should always assess for feeding intolerance. Examples of intolerance include:

abdominal distention, abdominal cramping, nausea & vomiting, diarrhea defined by 250 mL/shift, gastric residuals greater than 250 ml (if no other signs of intolerance).