

Clinical Tips- 001

如何開立完整的術後處方 How to describe a comprehensive GS postop orders

GS 楊卿堯 醫師

Ching-Yao Yang, MD, PhD

2017-08-08 W2 11:05-11:15am

	PostOP order for				Body Weight	Kg	Body height	cm	GS 楊卿堯 Order format
	Ward Room No.		Name		Chart No.			Remark	Purpose
1	Ordinary TPR + BP								Vital sign monitor
2	NPO with NG decompression								Oral intake order
3	IVF: T5 1200 ml + (N/S500ml+KCl 20 mEQ) + LR 500 ml + Amino 12X 400 ml + Multi-vitamine (Lyo-Povigent) 1 Amp IV drip QD								Parenteral nutrition
4	每瓶 T5 400 ml + RI 10 U								Sugar control
5	Albumin 2 BT IV drip (自費) QD x 3 days								Colloid supplement
6	Cefametzon 2 vial IV Q8h								Infection control
7	GM 80 mg IV drip Q12h								Infection control
8	Ventolin 1 Amp for inhalation Q8h								Respiratory rehabilitation
9	Triflow training								Respiratory rehabilitation
10	Nexium 1Amp IV QD								Stress ulcer prevention
11	Record I/O Q8h								Monitor I/O status, and U/O
12	Check one-touch QD								Monitor sugar
13	Check CBC + D/C, BCS + e ⁻ , AC sugar, Amylase, Lipase, CRP QW1, W4								Blood Lab monitor
14	Wound CD tomorrow, and then Q 3 days								Wound care order
15	On PCA or Morphine 5 mg IM Q6h prn								Pain control

Nutritional Requirements

- 1. Energy requirements
- 2. Build-up requirements
- 3. Vitality requirements
 - a. water
 - b. vitamins
 - c. minerals and trace elements

Energy requirements (BEE, BMR)

Harris Benedict equation

- Based on age, sex, body size, and activity
- Hospitalized patients are largely inactive hence the BMR is the main energy expenditure
 - $\text{BMR (kcal/day)} = 66 + (13.7 \times \text{wt}[\text{kg}]) + (5 \times \text{ht}[\text{cm}]) - (6.8 \times \text{Age}[\text{yr}])$ for males
 - $\text{BMR (kcal/day)} = 665 + (9.6 \times \text{wt}[\text{kg}]) + (1.7 \times \text{ht}[\text{cm}]) - (4.7 \times \text{Age}[\text{yr}])$ for females

Male: 70Kg, 170cm, 60 yrs => BMR: 1467 Kcal/day

Female: 60Kg, 160cm, 60 yrs => BMR: 1148 Kcal/day

BEE約等於 25Kcal/kg/day

TER= BEE+ activity factor + stress factor

Diseases that affect BMR

Table 1 - Alterations in Metabolic Rate

Patient Condition	Basal Metabolic Rate
No postoperative complications Fistula without infection	Normal
Mild peritonitis Long-bone fracture or mild to moderate injury	25% above normal Male: 1833.75 Kcal/day Female: 1435 Kcal/day
Severe injury or infection in ICU patient Multiorgan failure	50% above normal
Burn of 40%-100% of TBS	100% above normal

General Peripheral Parenteral Nutrition

- 70kg Male need; $70 \times 30 \text{ ml/kg/day} = 2100 \text{ ml water}$
- $\text{Energy} = 1467 \text{ Kcal}$
- **T5 1200 ml+LR 500 ml+ AminoK 500 ml+ KCL(10-10-10)mEq+MV 2ml iv drip QD**
- Water: 2200 ml
- Glucose: $120\text{g} \times 4\text{Kcal} = 480\text{Kcal}$
- AminoK: $3\% \text{ a.a.} \times 500\text{ml} \times 4\text{Kcal} = 60 \text{ Kcal}$
- Lipofundin (MCT/LCT) 10% 250ml = $250 \times 1 \text{ (Kcal/ml)} = 250 \text{ Kcal}$
- Total water: 2450 ml
- Energy: C 480 (60%), P 60 (7.6%), L 250 32% = **790 Kcal/QD**

Amino Acid Injeciton

	<i>Aminol-K / GlycalAmin</i>	<i>Moriamin-SN</i>	<i>Aminoleban / Aminopoly-H / Aminosteril N-Hepa</i>	<i>Aminol 12X</i>	<i>Aminosteril Infant</i>	<i>Nephrosteril</i>
Total AA (%)	3.0	10.0	8/7.115/8	12.0	10	7
BCAA/Total AA (%)	20 /23	23	35.5/38.7/42	20	30	
E/N ratio	0.96/0.96	1.16	1.09/1.04/-	1	1.07	1.5
Other sources of Calorie (g/100ml)						
Glycerin	-/3.0	-	-	-	-	-
Xylitol	5.0 /-	5.0	-	5.0	-	-
Electrolytes (mEq/L)						
Na+	41/35	<5	14/15-16/-	150	-	-
K+	-/24	-	-	-	-	-
Mg++	-/5	-	-	-	-	-
Ca++	-/3	-	-	-	-	-
Cl-	33/41	-	94/-/-	150	-	-
Acetate-	-/47	60	-	-	58	-
Osmolarity (mOsm/L)	600 /735	900	900/750/770	1630	885	654
ml/btl	500	200 / 1000*	500	200 / 500*	100	250

* Pharmacy bulk package.

藥品八碼	LYO1FB38																																																																																								
商品名	Lyo-Povigent 4 mL/vial																																																																																								
中文名	利保維源注射劑																																																																																								
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常用劑量	<p>IF only.</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th rowspan="2">(Multivita) Lyo-Povigen /mL</th> <th colspan="2">Infuvita</th> <th colspan="2">Lyo-Povigent</th> </tr> <tr> <th>(5 mL/amp 1)</th> <th>(5 mL/amp 2)</th> <th>(vial)</th> <th>(4 mL/amp)</th> </tr> </thead> <tbody> <tr> <td>Vitamin A (IU)</td> <td>2000</td> <td>3300</td> <td>—</td> <td>—</td> <td>3300</td> </tr> <tr> <td>Vitamin D (IU)</td> <td>200</td> <td>200 (ergocalciferol 5 mcg)</td> <td>—</td> <td>—</td> <td>200 (cholecalciferol 5 mcg)</td> </tr> <tr> <td>Vitamin E (mg) (as tocopheryl acetate)</td> <td>1</td> <td>10</td> <td>—</td> <td>—</td> <td>10</td> </tr> <tr> <td>Vitamin K1 (mg) (as phytonadione)</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>2</td> </tr> <tr> <td>Vitamin B1 (mg) (thiamine)</td> <td>10</td> <td>3</td> <td>—</td> <td>3.9</td> <td>—</td> </tr> <tr> <td>Vitamin B2 (mg) (Riboflavin)</td> <td>2</td> <td>3.6</td> <td>—</td> <td>4.6</td> <td>—</td> </tr> <tr> <td>Vitamin B6 (mg) (Pyridoxine)</td> <td>3</td> <td>4</td> <td>—</td> <td>4.9</td> <td>—</td> </tr> <tr> <td>Vitamin B12 (mcg) (Cyanocobalamin)</td> <td>—</td> <td>—</td> <td>5</td> <td>5</td> <td>—</td> </tr> <tr> <td>vitamin C (mg) (ascorbic acid)</td> <td>100</td> <td>100</td> <td>—</td> <td>100</td> <td>—</td> </tr> <tr> <td>Niacinamide (mg)</td> <td>20</td> <td>40</td> <td>—</td> <td>40</td> <td>—</td> </tr> <tr> <td>folic acid (mcg)</td> <td>—</td> <td>—</td> <td>400</td> <td>400</td> <td>—</td> </tr> <tr> <td>d-Panthenol (mg)</td> <td>5</td> <td>15</td> <td>—</td> <td>14</td> <td>—</td> </tr> <tr> <td>Biotin (mcg)</td> <td>—</td> <td>—</td> <td>60</td> <td>60</td> <td>—</td> </tr> </tbody> </table>		(Multivita) Lyo-Povigen /mL	Infuvita		Lyo-Povigent		(5 mL/amp 1)	(5 mL/amp 2)	(vial)	(4 mL/amp)	Vitamin A (IU)	2000	3300	—	—	3300	Vitamin D (IU)	200	200 (ergocalciferol 5 mcg)	—	—	200 (cholecalciferol 5 mcg)	Vitamin E (mg) (as tocopheryl acetate)	1	10	—	—	10	Vitamin K1 (mg) (as phytonadione)	—	—	—	—	2	Vitamin B1 (mg) (thiamine)	10	3	—	3.9	—	Vitamin B2 (mg) (Riboflavin)	2	3.6	—	4.6	—	Vitamin B6 (mg) (Pyridoxine)	3	4	—	4.9	—	Vitamin B12 (mcg) (Cyanocobalamin)	—	—	5	5	—	vitamin C (mg) (ascorbic acid)	100	100	—	100	—	Niacinamide (mg)	20	40	—	40	—	folic acid (mcg)	—	—	400	400	—	d-Panthenol (mg)	5	15	—	14	—	Biotin (mcg)	—	—	60	60	—
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藥品詳細資料

藥品外觀					
外觀描述	500 mL塑膠瓶，藍綠蓋，黃/藍色標籤				
學名	Potassium Chloride 20 mEq in 0.9% Sodium Chloride 500 mL				
藥價	<table border="1"> <tr> <td>健保價</td> <td>26.2</td> </tr> <tr> <td>管價</td> <td>33</td> </tr> </table>	健保價	26.2	管價	33
健保價	26.2				
管價	33				
藥品八碼	KCL1FAF0				
商品名	0.298% KCl in NS Injection, 20 mEq/500 mL/btl				
中文名	0.298%氯化鉀注射液(信東)				
劑型	注射劑				
藥理分類	<u>VII. Nutritional Agents, Electrolytic, and Water Balance</u> <u>1. Replenishers and Regulators of Water and Electrolytes</u>				
常用劑量	<p>IF. Generally, conc. \leq 40 mEq/L, rate \leq 20 mEq/hr, ECG monitored when rate > 20 mEq/hr. Serum K < 2 mEq/L and symptomatic: max. infusion rate 40 mEq/hr, with continuous cardiac monitoring; max. 400 mEq/day. Serum K > 2.5 mEq/L: max. infusion rate 10 mEq/hr, max. conc. 40 mEq/L, max. 200 mEq/day. Pediatrics: 0.5-1 mEq/kg/dose; max. 40 mEq; infuse at 0.3-0.5 mEq/kg/hr; max. 1 mEq/kg/hr.</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> CVVH 劑量建議 注射劑給藥指引 </div>				
衛生署許可證適應症	治療鉀缺乏症				
MaxDose	Serum K < 2 mEq/L: max. 400 mEq/day. Serum K > 2.5 mEq/L: max. 200 mEq/day.				
懷孕藥品分級	C 懷孕分級說明				
藥品	Hyperkalemia				

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15	On PCA or Morphine 5 mg IM Q6h prn						

請參考網址

<http://cyang88.blog.ntu.edu.tw/>

http://cyang88.blog.ntu.edu.tw/

楊卿堯 醫師 Dr. Ching-Yao Yang, MD, PhD
臨床醫學研究網 Clinical Medical Research Website

個人資料 發表文獻 推薦連結

請輸入關鍵字...

台灣消化系外科醫學會-繼續教育演講 (I) Rare GI tumor summit-台北場

2017年7月11日 楊卿堯 評論已關閉

演講對象: 年輕主治醫師, Fellow, CR, GS R3, R4, 等

主辦單位: 台灣消化系外科醫學會
時間: 民國 106 年 7 月 15 日 (星期六)
地點: 張榮發基金會10樓1001廳 (台北市中山南路11 號)

教育積分: 台灣消化系外科醫學會A類5分
教育積分申請中: 台灣外科醫學會、中華民國癌症醫學會

Rare GI tumor summit-台北場 Agenda

f t G+ +

GIST 胃腸道基質瘤

臺大醫院「胰臟腫瘤病友會暨醫學講座」講座課程

2017年6月26日 楊卿堯 評論已關閉

時間: 106年6月22日(星期四)下午13:00~16:00

訂閱

編輯群

楊卿堯醫師 杜欣怡 許琇琪

分類

- GIST 胃腸道基質瘤
- 其它
- 胰臟神經內分泌瘤
- 高階微創腹腔鏡手術
- 胰臟外科
- 移植外科學
- 胰島細胞 再生醫學
- 血管新生 癌症機轉

七月 2017

一	二	三	四	五	六	日
					1	2

上午 10:11 2017/7/11

Thanks for your attention!



Ching-Yao Yang, MD, PhD
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