

BEEBE HEALTHCARE
MARGARET H. ROLLINS SCHOOL OF NURSING
NURSING 202 - ADVANCED CONCEPTS OF NURSING
MULTIDISCIPLINARY CARE MAP - TEMPLATE
2024

S	<p>Situation:</p> <ol style="list-style-type: none"> MM, 72, 990373648 Cirrhosis with abdominal ascites 04/04/2024 04/05-04/06 Came in with increasing distention and fatigue that got worse over the span of two weeks, reports regular etoh use (about five drinks a night) 																										
B	<p>Background:</p> <ol style="list-style-type: none"> Essential tremor, hypertension, hyperlipidaemia, hernia repair, multiple facial fractures, full code CC weak with abdominal pain Came in on 04/04 complaining of increasing weakness and abdominal swelling, abdomen was soft, with mild diffuse tenderness and significant distention and normoactive bowel sounds. 04/04 abdominal CT revealed new cirrhosis diagnosis. Plan throughout time of stay included treating cirrhosis, abdominal ascites, electrolyte imbalances (hyponatremia, hypokalaemia), potential ETOH hepatitis, potential ETOH withdrawal. <ol style="list-style-type: none"> Diagnostics: CT of abdomen and pelvis with contrast revealed abnormal liver contour and enhancement suggestive of cirrhosis, small hiatal hernia, esophageal varices, rectal varices potentially suggesting portal hypertension, moderate abdominal and pelvic ascites, distended bladder, mild upper abdominal lymphadenopathy Ultrasound guided paracentesis- removed 2 L of ascitic fluid. Labs: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>04/04</th> <th>04/05</th> <th>04/06</th> </tr> </thead> <tbody> <tr> <td>Hgb – blood loss related to varices, finding of melena</td> <td>14.0</td> <td>14.1</td> <td>12.6 ↓</td> </tr> <tr> <td>Hct- blood loss related to varices, finding of melena</td> <td>37.7↓</td> <td>38.4↓</td> <td>35.3↓</td> </tr> <tr> <td>Na- low likely due to retention of water disproportionate to retention of sodium, causing a reduction in serum sodium osmolality</td> <td>125↓</td> <td>132↓</td> <td>132↓</td> </tr> <tr> <td>K- trending low due to dilution from excess fluid volume</td> <td>3.1</td> <td>3.4</td> <td>2.9 ↓</td> </tr> <tr> <td>Cl- trending low due to</td> <td>83↓</td> <td>89↓</td> <td>91↓</td> </tr> </tbody> </table> 				04/04	04/05	04/06	Hgb – blood loss related to varices, finding of melena	14.0	14.1	12.6 ↓	Hct- blood loss related to varices, finding of melena	37.7↓	38.4↓	35.3↓	Na- low likely due to retention of water disproportionate to retention of sodium, causing a reduction in serum sodium osmolality	125↓	132↓	132↓	K- trending low due to dilution from excess fluid volume	3.1	3.4	2.9 ↓	Cl- trending low due to	83↓	89↓	91↓
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Magnesium- trending low due to dilution from excess fluid volume and nutritional losses		1.4↓	1.6↓
BUN- may decrease with impaired conversion of ammonia to urea by the liver	4↓	5↓	4↓
Glucose -alcoholism can impact blood glucose	102	149↑	112
Ca- risk for trending low due to nutritional status and nutritional losses	9.0	9.2	8.9
Phosphorus -trending low due to excess fluid volume and nutritional losses		2.9↓	2.5 ↓
Protein- WNL, necessary to check due to reports of lack of appetite and nutritional losses related to alcohol consumption and withdrawal.		7.8	6.9
Albumin- WNL, but on the lower side and trending down. Likely due to 1. Fluid removal, numbers remained WNL with albumin administration. 2. Pt reported lacking appetite the weeks leading up to hospitalization.		3.7	3.5
Bilirubin – high due to cirrhosis of the liver		3.7↑	3.8↑
ALT – high due to cirrhosis of the liver		79↑	60↑
AST- high due to cirrhosis of the liver		199↑	148↑

C. Medications

Albumin Human 25% IVPB 25 gm in 100 ml once 04/05/2024- prevent paracentesis induced circulatory dysfunction

Folic acid 1 mg PO daily – risk for folate deficiency related to alcoholic liver disease

Furosemide 20 mg PO – reduce fluid

Magnesium Sulfate 2 gm in 50 ml at 25 ml/hr once 04/05 -replenish losses

Magnesium Sulfate 1 gm in 100 ml at 100 ml/hr IVPB 04/06 – replenish losses

Metoprolol 100 mg ER PO at bedtime daily – tx of htn

Pantoprazole 40 mg PO delayed release daily – suppresses gastric acid secretion

Potassium Chloride 20 meq 100 ml IVPB q 2 hr from 0900 to 1259 04/06 – replenish potassium, prevent dysrhythmias

Primidone two 50 mg tabs 100 mg does daily AM -tx of essential tremors

Primidone 50 mg PO before bed daily
Sodium phosphate 15 mmol 5 ml IVPB once 04/06 at 1200– replenish sodium
Spirolactone two 25 mg tablets 50 mg dose PO daily – reduce fluid
Thiamine 100 mg PO daily three days 04/05-04/08 – replace thiamine losses that occur with etoh consumption and withdrawal, prevent Wernicke’s encephalopathy
Thiamine 200 mg 12 ml IV push daily for three days 04/05-04/08

PRN:

Albuterol 90 mcg q4 hour two puffs – asthma hx
Hydralazine 10 mg IVP q4 hour – tx of increase in BP that is likely related to etoh withdrawal
Hydromorphone 1 mg IVP q 3 hour – abdominal pain/discomfort related to ascites
Lorazepam 1 mg PO CIWA 8-14 – tx of potential etoh withdrawal
Lorazepam 2 mg PO CIWA 15-24
Lorazepam 3 mg PO CIWA 25-34
Lorazepam 4 mg CIWA >= 35
***q1 hour for all lorazepam dosages**
Ondansetron 4 mg 2 ml IVP q4 hr – risk of N/V from potential etoh withdrawal
Simethicone 80 mg chewable tablet q 6 hour – relief of gas build up, abdominal discomfort relates to ascites
Tramadol 50 mg PO q6 hr -abdominal pain/discomfort related to ascites

D. Orders

CIWA every four hours
Outpatient liver function test within one week of discharge
Smooth muscle antibody
Mitochondrial antibody
Alpha fetoprotein tumor marker
Ultrasound guided paracentesis
CT of abdomen

A

Assessment:

1. HR 102 with regular rhythm, BP 168/88, SpO2 95% on RA, RR 18, T 36.9. A+O x4. Skin appears appropriate for ethnicity, sclera (right eye only, left eye is fake) yellowing, radial and pedal pulses present +3, no edema in lower extremities, moderate tremors that pt reports as “being worse than usual,” though he has preexisting tremors. Abdomen round and distended reporting discomfort with 3/10 pain related ascites, complaining of gas discomfort, bowel sounds present and normoactive, CIWA 4, positive for tremors.
2. **H+P:** CC: abdominal pain. History of presenting illness: with increasing distention and fatigue, symptoms getting worse over two weeks. MM reports regular alcohol use, several shots of liquor each night and reports drinking more heavily in the past, has not been eating or drinking well, denies fever and chills. VS T 36.8, HR 89, BP 138/84, RR 20, SpO2 92% on RA, Wt 72.7 kg. General: acute and chronically ill appearing. Abdomen: soft, mild diffuse tenderness with significant distention,

normoactive bowel sounds. Assessment/plan: 1. Cirrhosis- new diagnosis, suspect alcoholic, discriminant function of 15.7, need GI consultation, monitor for etoh withdrawal. 2. Abdominal ascites- diagnostic and therapeutic paracentesis. 3. Hyponatremia- will provide gentle IV hydration overnight because the patient looks intravascularly depleted by clinical exam. 4. Hypokalemia- replete.

Hospitalist 04/05: New orders for hydralazine, lorazepam. Newly diagnosed liver cirrhosis with abdominal and pelvic ascites, newly diagnosed portal hypertension, alcohol abuse, hyponatremia, hypokalemia, CT = abnormal, Na+: 125 → 132, Zofran for N/V, Pantoprazole. Thiamine, folic acid, multivitamin, Ativan prn. 04/05 ultrasound guided paracentesis with 2 L ascitic fluid removal. Monitor CIWA. GI consulted. Abdomen distended and soft.

Hospitalist 04/06: Orders- hydromorphone, potassium chloride, sodium phosphate. Abdomen non tender, distended, but soft.

GI consult: Presumed alcoholic liver disease with ALT to AST ratio >2, hyperbilirubinemia. Cirrhosis: likely related to alcohol consumption, will r/o other reasons. Coagulopathies with mild thrombocytopenia (fluctuating). EGD screening for variceal disease, AFP monitoring. Discussed strict alcohol cessation. MELD 3.0-17 points, benefit from hepatology in outpatient setting. Ascites: US paracentesis 2L fluid removal, awaiting ascites fluid analyzation, low suspicion for SBP secondary to portal htn, dual diuretic therapy in low doses, monitor kidney function and electrolytes. ETOH hepatitis: acute panels sent, Maddrey's DF based on this morning's CMP, yesterday's PT/INR 21.6, no indication for steroids. ETOH withdrawal continue to monitor with CIWA. Patient has a history of drinking about 5 drinks a night and reports it was increased in his youth (12-15 beers a night.) Had developed melena which was formed and small in nature. Dx of Barrett's esophagus.

PT: Presents below baseline mobility compared to prior to admission, where pt previously ambulated independently without an assistive device, now uses rolling walker. Ataxic gait, intermittent narrow BOS and LOB to right and left. Recommending HHPT with rolling walker.

OT: Education with pt and family on improving self feeding with the use of weighted utensils, elbow on the table to decrease tremor, weightbearing exercises. Offered resources for HHOT or outpatient OT and pt was not interested.

BH: Patient reports not feeling like he is in withdrawal. Is open to peer support, peers engaged.

3. Nursing Problems

Excess Fluid Volume- Due to increase fluid volume as a result of cirrhosis.

Electrolyte imbalance – Electrolytes were low due to dilution from fluid build up as well as nutritional losses related to GI losses and lack of appetite related to alcohol consumption/withdrawal.

Risk for acute substance withdrawal syndrome – Due to alcohol consumption history of “about 5 shots of liquor nightly,” reported by the patient.

4. **Current nursing interventions:** Administration of Magnesium Sulfate, Potassium Chloride, Sodium Phosphate, Spironolactone, Furosemide, Folic Acid, Albumin, Thiamine, Metoprolol. Provided education on medication mgmt and what medications to avoid with his new diagnosis, apply EPCs to prevent blood clot as well as potential bilateral lower extremity swelling, encourage eating at meal times,

<p>R</p>	<p>Recommendation:</p> <ol style="list-style-type: none"> Excess Fluid Volume: MM’s systolic blood pressure will remain below 140 during my time of care MM will not develop lower extremity edema during my time of care. Electrolyte Imbalance: MM’s potassium levels will achieve a normal limit during my time of care MM’s sodium levels will achieve a normal limit during my time of care. Acute substance withdrawal syndrome: MM will identify resources to assist with alcohol cessation prior to discharge. MM’s CIWA score will be 8 or below during my time of care. 2. Consults: outpatient physical therapy and occupational therapy to address physical deficits related to essential tremors, as well as a psych consult for assistance with alcohol cessation. Additionally, MM may benefit from routinely seeing a hepatologist 3. Tests or treatments: I suggest that his ascites continues to be managed with spironolactone. Regarding his varices, I suggest endoscopic band ligation and that he maintain his beta blockers for his portal hypertension. 4. 2 discharge needs: He needs to follow up with a hepatologist for prevention of decompensation, he needs education on nutrition regarding salt, fluid, and alcohol restriction. 5. 2 resources: Outpatient OT/PT, Sobriety program (AA, SMART recovery, Refuge Recovery)
	<p>Evaluation of Care:</p> <ol style="list-style-type: none"> 1. What interventions worked well? Paracentesis relieved fluid build up, electrolytes (magnesium, sodium, chloride) started to trend up indicating effectiveness of electrolyte replenishment, although potassium and phosphorus did continue to trend low. Appetite slowly started to increase after paracentesis. Therapeutic communication and education effective, patient verbalized understanding of medication changes/why he should not take certain over the counter medications when he goes home (ie Tylenol) due to his new diagnosis of cirrhosis, pt also expressed willingness to engage with Peer support and abstain from alcohol, verbalized understanding of alcohol abstinence. Folic acid administration has been known to reduce ALT levels in people with liver disease, which happened for MM. MM’s CIWA never exceeded a 4, which could be due to his own pathology/drinking tolerance/history, but could have been potentially reduced by prophylactic thiamine administration. 2. Has the patient improved? As mentioned above, there were some improvements in electrolytes, as well as a reduction in ALT and AST lab results. Stomach less distended and reports feeling more comfortable after paracentesis. Though tremors remained increased from preexisting baseline. 3. What was the status at the end of your shift? At the end of my time of care MM was resting comfortably in bed as evidenced by eyes closed, lights dimmed, respirations 16, no complaints of pain, no facial grimacing. He remains distended, but abdomen soft to the touch as compared to previous assessments. CIWA of 4, only exhibiting tremors with no complaints of anxiety, N/V, no agitation, no tactile disturbances, no sweating, no headache, nor any visual or auditory disturbances. Electrolytes vary in trends as mentioned previously. 4. Did you meet the goals of your time of care? If not, did you revise the goals? Some goals

were met and some were not. Unmet includes: Systolic BP frequently was in the 150s, potassium and sodium levels did not achieve normal limits during my time of care. Goals that were met include: MM did not develop lower extremity edema, he did establish a relationship with peer support, and his CIWA did not exceed 8. Goals were not revised, as the unmet goals were still reasonable and being addressed through medication management.

5. Did your patient problems remain the same? Yes, his problems did remain the same during my time of care.

- Identify the multidisciplinary team members involved in the care of your patient. Include the role they had in providing care.

