Protocol for Assessments, Diagnostic Studies and Therapy in the Initial Five Days of Hospitalized Moderate Severe UC

Day 1

Assessments	**Studies**	**Treatment**
• ***Call a GI Medicine consult*** • Consult surgeon if toxic megacolon* or if patient was already on more than 5 days off adequate iv steroids (>40 mg methyprenisolone iv). • Labs (CBC diff., CRP, LFTs, albumin, creatinine, cholesterol, magnesium, PTT, INR) • First stool test 1 for C. diff • Pregnancy test in all patients with child bearing age • Testing for Hepatitis B if not done in the past (HBsAg, HBsAb, HBcAB) and Hepatitis C Ab • Check TPMT if patient is not on azathioprine/6-MP or did not fail/was intolerant to azathioprine/6-MP in the past • PPD or quantiferon test in patients not on anti-TNF therapy (if not done in the previous 12-months) • Start patient diary (bowel frequency, number of bloody bowel movements) (see appendix for diary form)	• Abdominal plain film or CT abdomen if abdomen painful, distended • If never done in the past, consider CT-enterography for evaluation of small bowel inflammation to rule out small bowel Crohn's disease. • Plan for day 2 flexible sigmoidoscopy or colonoscopy for evaluation of severity of disease	• Initiate methylprednisone iv 3x20 mg iv or single dose 60 mg iv daily. • Initiate subcutaneous heparin or LMW heparin for venous thromboembolism prophylaxis. • Diet: Low residue diet (NPO if sigmoidoscopy/colonoscopy next day), in case of toxic megacolon NPO

*See definition in appendix

Day 2

Assessments	**Studies**	**Therapy**
• Inspect patient diary for therapy response. • Physical examination to evaluate abdominal tenderness and rebound tenderness (if increased tenderness and distension consider abdominal x-ray to rule out toxic megacolon). • Labs (CBC, CRP, albumin, creatinine). • Second stool test for C. diff. • If colon biopsies were performed for CMV testing order plasma CMV PCR.	• Flexible sigmoidoscopy or colonoscopy • If abdominal x-ray was abnormal on admission, consider re-imaging • If abdominal x-ray was abnormal on admission, consider re-imaging	• Continue steroids • Review medication list and try to minimize or discontinue narcotics • Continue SQ heparin for thromboprophylaxis. • Diet: Low residue diet in case of toxic megacolon NPO

Day 3

Assessments	**Studies**	**Therapy**
• Inspect patient diary for therapy response • Physical examination to evaluate abdominal tenderness and rebound tenderness (if increased tenderness and distension consider abdominal x-ray to rule out toxic megacolon) • Labs (CBC, CRP, albumin, creatinine)	• If abdominal x-ray was abnormal on admission, consider re-imaging	• Continue iv steroids • Continue SQ heparin for thromboprophylaxis. • Diet: Low residue diet in case of toxic megacolon NPO

Prediction of course of disease (72 hours on iv steroid therapy)

- Calculate prediction scores (Ho-index and Travis Index, see appendix). These scores help to predict steroid failure, however indices are only accessory instruments for decision-making and should not replace clinical judgment.
- Call surgery (if not already done on admission day) if patient is not responding to iv steroids (>30% decrease in bloody bowel movements),
- Discuss surgery or initiation of infliximab or cyclosporine. If patient already failed 6-MP/azathioprine, do not consider cyclosporine since 6-MP/azathioprine is needed for maintenance therapy.

Day 4

Assessments	**Studies**	**Therapy**
• Inspect patient diary for therapy response • Physical examination to evaluate abdominal tenderness and rebound tenderness (if increased tenderness and distension consider abdominal x-ray to rule out toxic megacolon) • Labs (CBC, CRP, albumin, creatinine) • Check plasma CMV and biopsy CMV PCR result. If both are positive or IHC of biopsy positive treat patient with with antiviral therapy.	• If abdominal x-ray was abnormal on admission, consider re-imaging	• Continue iv steroids, if patient significantly improved (>80% decrease in bowel frequency and no blood in stool) switch to oral steroids prednisone 40 mg once daily. • Continue SQ heparin for thromboprophylaxis. • Diet: Low residue diet in case of toxic megacolon NPO

Day 5

Assessments	**Studies**	**Therapy**
• Inspect patient diary for therapy response • Physical examination to evaluate abdominal tenderness and rebound tenderness (if increased tenderness and distension consider abdominal x-ray to rule out toxic megacolon) • Labs (CBC, CRP, albumin, creatinine), if you start cyclosporine now check again cholesterol, magnesium	• If abdominal x-ray was abnormal on admission, consider re-imaging	• If no sufficient response to iv steroids make decision alternatives (see day 3)

Patient Daily Diary Card

Date	# of Formed Stools/ #of loose stools	#of stools that contain blood	General Well Being Rating	Abdominal Pain Rating	#of feelings of urgency but no stool
Example 11/17/09	1 / 3	2	1	0	1
	/				
	/				
	/				
	/				
	/				
	/				
	/				
	/				
	/				
	/				
	/				
	/				
	/				
	/				

Abdominal Pain Rating
0= None
1= Mild
2= Moderate
3= Severe

General Well Being Rating
0= Generally Well
1= Slightly Under Par
2= Poor
3= Very Poor
4= Terrible

Signature

Date

Appendix

Definitions and Index tables

Definition of Severe Colitis *per Truelove and Witts* [1]

includes all of the following: ≥6 bloody BM's a day Temp>37.5 Pulse >90 Hgb<10.5 ESR>30 CRP > 30 mg/l

Criteria for toxic Megacolon [2]

Colonic distension > 5.5 cm on supine abdominal film
At least three of the following: • Fever > 38°C (101.5°F) • Heart rate >120/min • Neutrophilic leucocytosis > $10.5x10^9$/l • Anemia (hemoglobin<60%)
At least one of the following: • Dehydration • Altered consciousness • Electrolyte disturbances • Hypotension

Indices

Ho-index (72 hours after initiation of iv steroids) [3]

Ho-Index		
		Points
Mean stool frequency	<4	0
	4 ≤ 6	1
	6 ≤ 9	2
	> 9	4
Colonic dilation		4
Hypoalbunemia (<3.0 g/dL)		1
Score 0-1: low risk of steroid failure Score 2-3: Intermediate risk for steroid failure Score ≥ 4: high risk for steroid failure		

Travis Index (72 hours after initiation of iv steroids) [4]

Either

> 8 (bloody?) bowel movements per day

OR

>2 (bloody?) bowel movements per day and CRP > 45 mg/L

= 85% PPV for colectomy

References

1. Truelove SC, Witts LJ. Cortisone in ulcerative colitis; final report on a therapeutic trial. Br Med J 1955;2:1041-8.
2. Jalan KN, Sircus W, Card WI, et al. An experience of ulcerative colitis. I. Toxic dilation in 55 cases. Gastroenterology 1969;57:68-82.
3. Ho GT, Mowat C, Goddard CJ, et al. Predicting the outcome of severe ulcerative colitis: development of a novel risk score to aid early selection of patients for second-line medical therapy or surgery. Aliment Pharmacol Ther 2004;19:1079-87.
4. Travis SP, Farrant JM, Ricketts C, et al. Predicting outcome in severe ulcerative colitis. Gut 1996;38:905-10.