Orientation to General Surgery

SOAP Note (Progress Note)

One line description (age, post-operative day #, procedure)

Pertinent previous issues: pneumonia, CT yesterday showed abscess, etc…

E.g. 39 yo female POD#8 for sigmoid resection, recovering from pneumonia

Subjective patient symptoms

Pain

E.g. having more pain, having no pain….

GI function

E.g. Nauseated, tolerating diet, vomiting, passing gas, no gas, stool, diarrhea…

Mobility

E.g. Up in chair, walking

Symptoms of post-op complications

E.g. Short of breath, chest pain

Objective patient symptoms

Vitals

- Writing the vitals preferable to AVSS

Urine output and drain outputs should be recorded

Abdominal exam

E.g. Soft, distended, firm, tender….

Wound exam

E.g. Erythematous, purulent, healing well, clean/dry/intact…

Physical findings (CVS/Resp and other systems)

E.g. swollen leg, decreased air entry….

Assessment

E.g. Doing well, normal POD#....

E.g. ? Small bowel obstruction, ? GI bleed, inadequate analgesia….

Plan

Should generally say WHAT and WHY

BE BRIEF

E.g. Advance diet to clear fluids, Call GI to scope, CT to rule out obstruction, Pain team to see to adjust analgesics

Components of a General Surgery consult

ID

- Know where the patient came from (home, assisted living, etc…)

PMH/PSH (Past medical history/Past surgical history)

- Comorbidities
- Significant hospitalizations
- Prior surgeries (procedure, year, location)
- Colonoscopies, gastroscopies (findings, year, location)

Medications and Allergies

- Blood thinners, aspirin and other anti-platelet agents are particularly important – ask specifically, as many patients don't consider them medication
- If the patient has recently had antibiotics for any reason, they are at risk for both C. Diff and multi-drug resistant bugs – be very specific about what they were prescribed, when they took them, and for how long

Family History

- Crohn's, Ulcerative colitis, cancer, adverse reaction to anaesthetic, etc…

HPI

- Pain in terms of PQRST
- Ask about changes in pain over time
- Always ask about: nausea, vomiting, diarrhea, constipation, flatus, hematemesis, hematochezia, melena
- Be very specific about GI symptoms
  E.g. Diarrhea…. How many times a day? Totally liquid? Or like oatmeal? Has it been getting more frequent? etc.
- If patient has GI symptoms, ask about what is normal for them
- Ask about associated symptoms, especially urologic and gynecologic
- Include pertinent negatives in your history (e.g. no dysuria, no hematuria, etc.)
- Last bowel movement, last passage of flatus, last meal
- For any patient with lower GI symptoms (diarrhea or bleeding), ask about travel, sick contacts and recent antibiotics
- Ask about general symptoms, such as weight loss, fever, fatigue
- Do quick review of symptoms to ensure that you identify life threatening problems that need to be further investigated
  E.g. Patient who presents with vomiting…but actually is having a myocardial infarction

O/E

- General appearance (comfortable, toxic, lethargic, etc…)
- Initial vitals, most recent vitals
- Resp & CVS exams
- Abdo exam
    - General appearance (distended, non-distended)
    - Surgical scars, discoloration
    - Bowel sounds (absent, hyperactive)
    - Tenderness, rebound, guarding
    - Other "signs" (Murphy's, Psoas, etc…)
    - Hernias (incisional, umbilical, inguinal)
    - The abdo exam in Gen Sx ***almost always*** includes a DRE
    - For any male presenting with inguinal pain, a testicular exam is necessary

Labs/Investigations

You will be reviewing labs and other tests – if you think something needs to be added, discuss with your resident.

CBC

- Look up most recent bloodwork prior to this particular hospitalization & compare to identify bleeding

Electrolytes

- See if patient has baseline creatinine

LFTs, Amylase

- Remember, pancreatitis can imitate other abdominal problems

INR/PTT
Lactate
Urinalysis
Cultures
βHCG

- **Absolutely essential for female patients**

ABGs (for sick patients, to be done with resident)
Group and screen for patients who might need an OR

AXR, U/S, CT scans

- May already have been done prior to General Surgery consult

CXR, ECG (if age-appropriate)

Assessment/Plan including a differential diagnosis

Come up with a differential diagnosis
Review with your resident to refine the DDx and to formulate a plan for the patient

NOTE: Before presenting a consult, it's a good idea to know if the patient is NPO (and for how long), has fluids running, has been bolused, has a foley, NG output, has received medications in the ER, etc…

Operative Note

Preoperative diagnosis
What you knew before the case: e.g. rectal cancer, small bowel obstruction, appendicitis…
May be vague: e.g. peritonitis

Postoperative diagnosis
The problem actually found: e.g same, small bowel ischemia, non-perforated/perforated appendicitis….

Procedure
The surgery performed: e.g. laparoscopic appendectomy, laparoscopic/converted to open sigmoid resection, small bowel resection, right hemicolectomy…

Surgeon: the attending
Assistants: the residents and you
Anaesthetist/type of anaesthetic

Findings
Specific issues relevant to the case, unusual findings
E.g. necrotic appendix, stricture in proximal jejunum, significant adhesions….

Specimen/Cultures: what was sent to the pathologist
Drains: a diagram is frequently useful when patient has multiple drains in different locations

Patient status
Whether the patients was extubated at the end of the case and the patient's post-op destination (PACU/ICU)

For your own learning, go over the note with your resident

Sample pre-operative checklist for General Surgery

- ☐ Consent obtained (by the resident)
- ☐ NPO
- ☐ IV fluids running
- ☐ Antibiotics on call
- ☐ Heparin 5000 units SC on call
- ☐ Group and screen (crossmatch only if bleeding is anticipated)
- ☐ ECG (patients over 50 years)
- ☐ CXR (patients with respiratory problems, symptoms or smoking history)
- ☐ Know where the family can be found post-op

For select/acutely ill patients

- ☐ Stop IV heparin 6 hours prior to OR, if running
- ☐ CBC, lytes, creatinine, INR
- ☐ Anaesthesia consult
- ☐ Other subspecialty consult for specific issues
- ☐ ICU aware
- ☐ Stress dose steroids
- ☐ Endocarditis prophylaxis
- ☐ Pacemaker issues
- ☐ Stoma marking

Sample Admission Orders/Sample Post-Operative Orders for General Surgery

☐ Admit to General Surgery, under Dr. Jones
☐ Diagnosis: E.g. Appendicitis, s/p lap cholecystectomy, s/p R hemicolectomy
(s/p = *status post*)

☐ Diet: NPO, sips of clear fluids (CF), diet as tolerated (DAT), etc…
☐ Activity: AAT
Typically post-op: Out of bed tonight or tomorrow.
☐ Vitals: Vital signs regular (VSR), q6hrs, or more frequently if necessary

☐ Strict ins/outs
☐ Drains & Tubes
E.g. Foley/Drain to straight drainage (SD)
E.g. NG to intermittent low Gomco or SD
E.g. Chest tube (CT) to -20 cmH_20 (this is the amount of suction to be applied to the tube)
E.g. Jackson Pratt (JP) to bulb suction
☐ IV Fluids
E.g. 2/3 & 1/3 + 20 mEq/L KCL @ 100 cc/hr
E.g. NS @ 100cc/hr
E.g. NS + 20 mEq/L KCL @ 75 cc/hr
☐ Replacement fluids for NGs, drains, etc…
E.g. Replace NG losses 1:1 with NS + 20 mEq/L KCL q6hrs

☐ Drugs
When ordering medications be sure to remember the 6 A's;
- antibiotics
- analgesics
- antithrombotics
- antiemetics
- anxiolytics
- antecedents (home meds)

If holding home meds, write them in the chart and specify HOLD so they aren't forgotten
Unless contraindicated, most patients should get a bowel routine

☐ Daily labs (including evening CBC day of OR if significant intra-op blood loss)
E.g. CBC, lytes, Cr, LFTs, Ca, Mg, PO_4 qdaily x 2 days
☐ Cultures
E.g. blood cultures, urine C&S, C. Diff toxin, stool for O&P and C&S
☐ Investigations
E.g. CXR, ECG, barium swallow

☐ Notify MD if; SBP<90 or >160, HR<50 or > 110, U/O<30cc/hr for 3 consecutive hours, Temp > 38.5°C, O_2Sat < 92%
☐ Ostomy care, PT/OT, social work, pharmacist to see (if needed)

Common Medications

Heparin 5000 units SC bid

Pain control
Tylenol #3 i-ii PO q4-6 hrs PRN
Percocet i-ii PO q4-6 hrs PRN
Toradol 30mg IV/IM q4-6 hrs PRN
Morphine 2-4 mg IV q4-6 hrs PRN
PCA as per acute pain service (APS)

Antiemetics
Gravol 25-50 mg PO/IV q4-6 hrs PRN
Stemetil 10 mg IV q6 hrs PRN
Maxeran 10 mg PO/IV q8 hrs PRN
Ondansetron 4-8 mg IV q12 hrs PRN

Bowel meds
Colace 100 mg PO bid
MOM 30 cc PO bid
Dulcolax 10 mg PO/PR PRN
Glycerin supp i PR PRN
Lactulose 15-30 cc PO bid
Senokot i-ii PO qhs PRN

Gastric protection
Ranitidine 150 mg PO bid
Or
Ranitidine 50 mg IV q8 hrs
Losec 20 mg PO qd
Pantoloc 40 mg PO qd

Common antibiotics
(preferable to write number of days to be given, e.g. x 5 days)
Ampicillin 1 gram IV q6 hrs
Ancef 1 gram IV q8 hrs
Cipro 500 mg PO bid
OR
Cipro 400 mg IV bid
Flagyl 500 mg PO/IV bid (tid for C. Diff)
Ceftriaxone 1 mg IV q24 hrs
Pip/Tazo 4.5 mg IV q6 hrs
Vancomycin 1 gram IV q12 hrs, peak and trough following 3rd dose
Septra DS i PO bid

Pre-operative antibiotics for GI procedures
Refer to Best Practices in General Surgery website
http://www.surg.med.utoronto.ca/gen/bpigs/Guideline_SSI.pdf

Bowel prep
Refer to Best Practices in General Surgery website
http://www.surg.med.utoronto.ca/gen/bpigs/Guideline_MBP.pdf

Insulin sliding scale
Insulin sliding scale using Humulin R
Accucheck qid

Blood glucose	
0-4.0	Call MD, give orange juice
4.1-10.0	0 units
10.1-12.0	2 units
12.1-14.0	4 units
14.1-16.0	6 units
16.1-18.0	8 units
18.1-20.0	10 units
> 20	10 units, call MD

Name ID# Age/Sex Room CODE	Admitting Dx: Procedure: POD#:	Issues: Allergies	Labs Ins/Outs: HR BP T O_2	Investigations/Consults	To Do ☐ ☐ ☐ ☐ ☐ ☐ ☐
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