Welcome to the Department of Pediatric Surgery’s Surgical Service at The Monroe Carell Jr. Children’s Hospital at Vanderbilt. Your goal is to become familiar with the special needs of children and neonates as surgical patients, to recognize and treat entities peculiar to pediatric surgery, and to manage lesions and illnesses commonly seen in a surgical office practice. This manual is intended both as an orientation to our general policies and preferences and as a guide to pediatric surgical care.

We want you to know that YOU ARE NOT ALONE. We do not expect you to know how to manage many of these patients or clinical situations. The faculty and senior residents are always available for questions. Do not hesitate to call a surgical attending or the chief pediatric surgical resident(s) at any time of the day or night. Each patient on the pediatric surgical service is admitted to one of the surgical attendings who is ultimately responsible for the patient’s care. The surgical attending should be notified of all changes in a patient’s course as they occur.

The pediatric surgical service is an active clinical service and should be an excellent opportunity to develop your operative skills. However, operating is a privilege and must be earned.

We believe that pediatric surgery is the best of surgical subspecialties. During your rotation, you will have an opportunity to see many of the clinical conditions unique to our subspecialty. You will also see patients with conditions that are commonly managed by pediatric general surgeons.
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The free-standing Monroe Carell, Jr. Children's Hospital at Vanderbilt opened in February of 2004. However, the origins of Pediatric Surgery at Vanderbilt date back to 1925, when the first patient evaluated in the new Vanderbilt University Hospital emergency department was a child presenting with an acute abdomen. From this point forward, many of the giants of American Surgery made original and significant contributions to Pediatric Surgery while on staff at Vanderbilt. In the 1940’s, Dr. Rollin Daniel (then chief of Thoracic Surgery) performed the first successful primary repair of esophageal atresia with tracheoesophageal fistula in a newborn. This landmark event coincided with Dr. Cameron Haight’s similar success, which was published first and thus gave Dr. Haight much of the historical credit for this accomplishment.

Subsequently, Dr. H. William Scott made many contributions to pediatric surgery, including the first total repair of tetralogy of Fallot in 1955. During the World War II era, it was Dr. Scott who truly began Pediatric Surgery at Vanderbilt. While pursuing his core general surgery training in Boston, Dr. Scott had the unique opportunity to gain three years of pediatric surgery experience under the tutelage Drs. Ladd and Gross at the Boston Children’s Hospital, thereby giving him an enormous exposure to the field. As a result of Dr. Scott’s pediatric surgery experiences and tremendous influence, many of the current leaders in pediatric surgery nationally, including Vanderbilt’s own, Dr.’s O’Neill and Neblett, have developed a strong interest and legacy in the training of both general and pediatric surgeons. Along with the collaboration of Dr. George Holcomb, Jr., Dr.’s O’Neill and Neblett are largely responsible for the development and growth of the Department of Pediatric Surgery at Vanderbilt as we know it today. As a testament to that growth and its commitment to continue to educate future pediatric surgeons to the highest level, in July of 2007, the Department of Pediatric Surgery at Vanderbilt began its fully accredited (ACGME approved in June 2007) residency training program in Pediatric Surgery.

*Faculty and Fellows of the Department of Pediatric Surgery, Vanderbilt Children’s Hospital, and their respective training programs (years of service at Vanderbilt are in parentheses):

George W. Holcomb, Jr. (1971 – 1985) Boston Children’s Hospital
Wallace W. Neblett, Jr. (Professor, Chairman, 1980 – present) Cincinnati Children’s Hospital
John Pietsch (1986 – present) Montreal Children’s Hospital
Walter Morgan (1990 – present) Johns Hopkins
Robert Cywes (1998 – 2002) CS Mott’s Children’s Hospital, University of Michigan
Harold N. Lovvorn, III (2002 - present) LeBonheur / St.Jude Children’s Research Hospital
Edmund Yang (2003 - present) Boston Children’s Hospital
Stephen Morrow (2004 - present) Mercy Children’s Hospital, Kansas City
Eric Jensen (2006 - present) St. Louis Children’s Hospital, Washington University
Gretchen Purcell (2006-present) Children’s Hospital of Pittsburgh
Barry R. Berch - fellow (July 2007 – present) Vanderbilt general surgery
Joshua Glenn - fellow Medical University of South Carolina general surgery
(July 2008 – present)
Thomas P. Rauth – fellow Vanderbilt general surgery
starts July 2009

*Vanderbilt General Surgery Resident Graduates entering Pediatric Surgery and their respective training programs:

George W. Holcomb, Jr. Boston Children’s Hospital
James A. O’Neill, Jr. (1965) Columbus Children’s Hospital
James Carson (1979) Children’s Hospital of Oklahoma
Catherine Wilt (1981) Children’s Hospital of New York /Presbyterian (Columbia University)
Wallace W. Neblett, III (1978) Cincinnati Children’s Hospital
George W. Holcomb, III (1986) Children’s Hospital of Philadelphia
Barry Hicks (1991) Children’s Hospital of New York-Presbyterian (Columbia University)
Mack Harmon (1991) Children’s Hospital of Philadelphia
Alfred Chahine (1996) Emory University / Egelston Children’s Hospital
Barbara Gaines (1997) Children’s Hospital of Pittsburgh
Melvin Sidney Dassinger (2005) LeBonheur / St. Jude Children’s Research Hospital
Chuck Leys (2007) Children’s Mercy Hospital, Kansas City
Mary Austin (2007) Los Angeles Children’s Hospital
Barry R. Berch (2007) Vanderbilt Children’s Hospital
Eric N. Hansen (2008) Children’s Hospital of Alabama (UAB)
Thomas Rauth (2009) Vanderbilt Children’s Hospital
I. INTRODUCTION

The information provided in this manual is in no way original, rather it represents a compilation of basic pediatric surgery teaching, management routines, and random tidbits of useful information collected and updated through the years. Please read it during your rotation. At the completion of your time at VCH, it is hoped that you will have a thorough introduction to the care of the pediatric surgical patient. The purpose of the manual is to:

1. Describe the guidelines for the management of patients on the pediatric surgical service.

2. Provide an intellectual background for pediatric surgery.

3. Provide specific methods to be used preoperatively, intraoperatively and postoperatively.

All surgical residents and medical students have education as a primary goal while on this service. Discussions in the OR, during conferences and on rounds, and appropriate reading provide a background for the practical experience obtained.

While on this service, students and residents will become familiar with the theories of and details in managing neonatal and pediatric surgical cases, but elective and emergent. The following texts will be helpful:

*Pediatric Surgery.*

*Pediatric Surgery.*

*Operative Pediatric Surgery.*

*Operative Pediatric Surgery.*

*Principles of Pediatric Surgery.*
II. GENERAL INFORMATION

A. Nutritional Options for Yourself
The food court is located on the second floor. Your ID badge with the stipend allotted to you will work at any of the areas:
Subway, Taco Bell/Pizza Hut, Suzie's Coffee, Ben/Jerry's, Vandy Cafeteria Line
There are vending machines in the cafeteria and OR staff lounge which are always available.

B. Weekly Schedule

Monday
6:00am  Team rounds with Senior Residents
7:00am  Preop patients, Run list with Attendings
7:30am  OR
9:00am  Neblett clinic for Fellow/Designated Senior Resident

Tuesday
6:00am  Resident rounding
7:00am  Preop patients, Run list with Attendings
7:30am  OR
8:30am  Morrow Clinic for R3/Intern

Wednesday
6:00am  Resident Rounding
7:00am  M&M  1st & 3rd Wed
Ped Surgery Grand Rounds  2nd Wed
Trauma M&M  4th Wed
8:00am  Specialty Conferences
GI Surgery  1st Wed
Radiology  2nd Wed
Tumor Board  3rd Wed
Trauma  4th Wed
9:00am  Specialty Conferences
Non-tumor Path  2nd Wed
Didactic  4th Wed
vs Dept meeting vs Resident clinic
10:00am  O'Neill/Resident Clinic vs OR for designated Senior Resident

Thursday
6:00am  Resident Rounding
7:00am  Preop patients, run list with attendings
7:30am  OR
8:30am  Jensen/Purcell clinic for intern

Friday
6:00am  Resident Rounding
7:00am  Dept of General Surgery Grand Rounds
8:00am  General Surgery Residents Teaching Conference (Light Hall)
8:00am  OR (fellows only)
9:00am  Yang or Purcell clinic for intern
C. On Call Room
Located on 8B is an area with lockers, 4 separate rooms with beds, and a common area with television/bathroom/shower/sink/microwave. Two of these rooms are designated “fellows” rooms, either of the other 2 are available to the other general surgery residents rotating on our service.

D. O.R. Locker
OR lockers are available to the senior residents on the service. These can be obtained from the OR supervisors (936-0027).

E. Coverage During Illness and Other Absences
Every attempt should be made to continue working during minor illnesses to avoid interrupting patient care. If a resident misses night call, they are expected to make up the call at a later date.

Other residents on the service are expected to provide coverage in the absence of another physician.

All absences other than illness and any proposed changes in the call schedule must be cleared with the Senior Residents as far in advance as possible. The resident is responsible for arranging coverage of patients during the absence.

Provisions will be made in the event of long-term illness to maintain call coverage without demanding excessive additional night call from the residents. Please notify the Senior Residents.

F. Paperwork
1. History and Physical: Utilize the Starpanel Pediatric Surgery templates for all consults, trauma resuscitations, and other admission notes. Templates in starpanel are available for all pediatric surgical notes.

2. Progress Notes: Written on all our primary patients and appropriate consults in standard fashion daily by the interns/NPs. All ICU (nicu and picu) notes should be written using the starpanel templates.

3. Post Op Note: Include vital signs, urine output, post-op and wound check on all hospitalized post-operative patients.

Discharges
Discharge Summary
Must be dictated by the physician or advanced practice nurse writing the order at the time of discharge. All discharge orders should be entered as early as possible.

a) Discharge Orders/Meds/Followup:
   Formalize plan with senior residents/attendings.
Operative Permits

Operative permits are to be updated or completed by the resident assigned to the case, using language any parent would understand. A witness must be present while explaining all procedures. Verbal permits may be obtained by two people. Obtain operative permit early, as parents may leave.

Three Operative Permits exist to date, these include anesthesia and use/transfusion of blood products. Be sure to complete the most appropriate permit for the procedure being performed.

For example, the following language should be used:

a) **Circumcision:** Remove extra skin from end of penis
b) **Umbilical hernia repair:** Close opening at belly button
c) **Inguinal hernia repair and exploration:** Open (left or right) groin, fix hernia. Look for hernia on other side and fix if found
d) **Gastrostomy placement:** Put tube in stomach and bring out abdominal wall
e) **Orchidopex:** Bring testicle to scrotum
f) **Scrotal exploration:** Open scrotum, untwist (right or left) testicle, fix testicles to scrotum, possibly remove testicle
g) **Ostomy closure:** Put bowels together and put back in abdomen
h) **Pyloromyotomy:** enter abdomen, split muscle to allow stomach to empty
i) **Nissen fundoplication:** Wrap top of stomach around bottom of esophagus/food tube
j) **Central line placement:** Put line in central vein through large vein in neck (beneath “collar bone”) or leg
k) **Appendectomy:** Open abdomen, remove appendix
l) **Operative reduction intussusception:** Open abdomen, unlock bowels, remove appendix, possibly remove dead bowel

*Be sure to state the intent to use Laparoscopy.

4. **Operative Notes:**
Dictation will be done by the attending. Brief Operative Notes in starpanel are to be completed by the resident(s) immediately after procedure is completed. These should be recorded in StarPanel under the “Forms” tab and named Immediate Post-operative Note.

5. **Inpatient Orders**
All inpatient orders should be entered **before going to the operating room** in the morning. The interns and NP(s) should get together and “run the list” as a group, and divide this up such that orders are entered promptly to prevent delays in patient care.
III. SERVICE GUIDELINES

A. Notification of Senior Residents
The Pediatric Surgery Senior Residents are responsible for managing the service and must be informed of any emergency admission, consult, change in patient condition or administrative problems. They expect to be called anytime, day or night, for any questions or problems. The interns are responsible to the senior residents for all general aspects of the service.

B. First Call Resident
The resident who is on call that day will generally remain out of the operating room to cover all patient care matters (along with assistance by our NP’s), consults and walk-in clinic visits, and emergency room calls.

C. Trauma Responsibilities
1. The surgery resident is a part of the trauma resuscitation team. The on-call intern and a senior resident are expected to be present at all level I Trauma Alerts. The senior resident is in charge of "running" the resuscitation.
2. You are to provide practical and technical assistance.
3. Level II or lower trauma patients will be worked up by the ED team initially. If the emergency department staff asks for a surgical opinion or desires that the patient should be managed by the surgical service, a consult will be generated and the intern on-call should respond promptly.

D. Operating Room Responsibilities
1. The resident assigned to a case should be present for patient induction, positioning, and prepping.
2. The resident will complete the post-op orders and brief operative note, and will supervise the transport of the patient to the post anesthesia care unit.
3. The resident will be available to assist any and all assigned cases, notifying the OR front desk if they leave the OR area. Residents are always welcome and encouraged to scrub on any case of interest to him/her.
4. The resident should inquire about the disposition and discharge instructions of each patient at the time of the procedure. Ask the attending during the case if there are any special orders/instructions (s)he would like. It saves a page later.

E. Assignment of Cases
Every effort will be made by the Senior Resident(s) to assign cases at the end of each day so that the residents can read and prepare for their next day’s procedures. Residents are expected to read the patient's chart and know pertinent medications, perioperative preparations and past medical history. Senior residents will certainly be prepared for the more advanced elective cases in advance. If the case is particularly unique or complex, call the attending the day/night before to touch base and get an idea of his/her plan. If not assigned
to a particular case, any house officer or student may assist on a given procedure.

F. Booking a Case

1. Elective cases are typically booked by the surgeons’ respective administrative assistant. If a new case arises on an inpatient that will be scheduled for later in the week, you may call the appropriate assistant and ask her to board the case.

2. Urgent/Emergent and weekend cases will almost always be booked by the resident. Once the decision is made to operate, boarding the case should be done immediately and as part of the pre-operative work-up. Call the OR Board at x60027 with the following information:
   a) Pt name and MRN
   b) Attending surgeon
   c) Procedure name and CPT code
   d) Anticipated length of the case
   e) Any special requirements (e.g. bean bag, unusual patient positioning, endoscopic equipment, etc.)
   f) Your pager for contact information

G. Common CPT Codes

1. Lap/open appy: 44970/44950
2. Pyloromyotomy: 43520 you must specify laparoscopic vs. open – there is no current CPT for lap)
3. Gastrostomy tube (open/lap): 43830 (43831 for neonates) / 43653
4. I&D abscess
   a) Perianal: 46050
   b) Hip/Thigh: 27301
   c) Leg: 27603
   d) Forearm: 25028
   e) Shoulder: 23030
5. ECMO cannulation: 36822
6. FB removal esophagoscopy/bronchoscopy: 43215 / 31635
7. Gastroschisis/Omphalocele closure:
   a) Primary: 49605
   b) Secondary closure, with silo removal: 49606
8. Fundoplication
   a) Laparoscopic Nissen: 43280
   b) Open Nissen: 43325
   c) Open Thal (Morrow): 43325
9. Central Lines
   a) Port-a-cath: 36563
   b) Hickman/Broviac
   c) <5yo: 36557
   d) >5yo: 36558
   e) Hickman/Broviac removal: 36589
10. Exploratory Laparotomy: 49000
11. Laparoscopic, unlisted, abdominal procedure (for adding lap equipment): 49329
H. Patient Care Responsibilities and Rounds

1. Floor patients
   a) Interns should prepare for rounds on the patients beginning at 0530 (obtaining vital signs, in/outs, sign out from night call resident), and meet with senior resident at 0600 in 3rd Floor workroom.
   b) Help with daily order entry, note writing, and discharges. (The NPs are invaluable to your education and the efficiency of the service. Help them and they will help you.)
   c) Respond promptly to calls from the floor. If you anticipate being tied up longer than appropriate for the given situation, call one of your colleagues. If this means someone more senior (even an attending if everyone else is tied up) needs to be called, do so.
   d) Dressings typically come down POD#2 on clean cases. This is your job. The wounds must be evaluated.
   e) Follow up on daily tasks. Make a list of check-boxes and see that all are checked by the end of the day.

Run the list with the NPs before they leave EACH DAY (approximately 2-3pm). Efficiency requires superb communication. Seek them out and make yourself available to them. Don’t make them hang around inordinately long to suit your schedule.

I. Rounds Presentation

Please stand so that all members of the Surgical Team can hear the presentation.

PATIENT’S FULL NAME
   Major diagnosis ________  POD #________ Procedure ________
   Antibiotic ________  day #____
   Tmax ________

Weight ________ (note change from previous day’s weight)

Significant events of last 24 hours included:

1. Input
   a) Enteral Status: If taking an oral diet (po), quote maintenance fraction of daily goal/caloric needs, current feeding volume and frequency and formula name.
   b) Parenteral Status: Maintenance fraction, IV rate and composition.
   c) Total caloric intake (Kcal/kg) - In infants (<10kg), we aim for >110 nonprotein Kcal/kg and a weight gain of 20-30gm/day

2. Output
   a) Urine: cc/kg/hr
   b) Nasogastric tube output or emesis: volume per shift, character (bilious, coffee grounds, clear)
   c) Stool: Note whether infant or child has stooled in the previous 24 or 8 hours. Note whether there is water loss stool, suggesting intolerance of osmotic load, and whether the clinitest (for reducing substances) or hematest (for blood) are positive.
**Each member of the team is important and has information to contribute. Be respectful and know your place. There is a time and a place for interjecting your thoughts/observations/biases. Defer to those more experienced as appropriate.**

**J. Patient Unit Policies**
1. Wash hands before examining each patient.
2. All procedures on patients must be carried out in the treatment room, except for isolation cases. The child's bed should be considered a "safe" area. No procedures should be performed in playrooms.
3. Sides of cribs must remain all the way up and locked at all times.
4. Isolation restrictions must be strictly followed.
5. Clothing and restraints should be reapplied after examining a child.
6. All accidents or near accidents must be reported on an incident report form; facts, not opinions or conjecture-about accidents, must be recorded on the chart.
7. Parents are permitted to visit at any time. Arrangements for parents to sleep overnight are made by the nursing staff.
8. Patient passes are available for special circumstances for a six-hour time limit. The nursing supervisor should be consulted for details.
9. For routine intravenous access, venipuncture should always be attempted first on a peripheral vein before attempting a central venous stick. Likewise, the brachial or radial artery should be used in preference to the femoral artery for ABGs.
10. Universal precautions should always be observed. Needles and syringes should be properly disposed following their use.
11. Unit kitchens are for patient use only. Kitchen supplies are budgeted by each nursing floor. Food eaten by residents mean that it is unavailable for patients. Food should not be eaten on rounds.
12. Do not discuss patients on the elevators or in the cafeteria.
13. In the NICU, patients should be examined without a lab coat on and with long-sleeves rolled up. Always wash hands between exams.

**K. Pre-op Check List**
1. Physical exam - check operative site for rashes, previous incisions.
2. Pre-op medication modification
   - Steroid coverage
   - Insulin adjustment
   - Bowel prep
3. Peri-operative antibiotics
   a) Most surgical neonates receive Ampicillin and Gentamicin on admission and for five days post-operatively. Claforan should
be used instead of Gentamycin with suspicion of renal disease or abnormal creatinine.

b) Patients admitted for uncomplicated appendicitis – Zosyn preop only. All these patients should be placed on the “noncomplicated appendicitis pathway” as directed in WizOrder.

c) Patients with the diagnosis of ruptured appendicitis – Zosyn vs Amp/Gent/Flagyl until afebrile for 24hrs with normal WBC. Discharge with po or IV abx’s at discretion of attending.

d) Patients for pyloromyotomy, circumcision, orchiopexy, and inguinal or umbilical hernia repair DO NOT RECEIVE ROUTINE PERIOPERATIVE ANTIBIOTICS!!!

4. Preoperative blood bank
   a) All surgical neonates with congenital anomalies (except hernia, hypertrophic pyloric stenosis): type and screen, then type and cross match for 20-40cc/kg of PRBC, 40cc/kg Platelets, and 40cc/kg of FFP (check with chief resident first)
   b) All stable surgical neonates without congenital anomalies only need a type and screen
   c) Always type/cross if systemically ill

5. Pre-consults
   Anesthesia
   Intensive care unit – sometimes bed preparation is necessary
   Cardiology

6. Pre-op x-ray studies - review with radiologist and have available in OR through PACS web.

7. Consent for operation or other procedures, e.g. appendectomy, circumcision, line placement

8. Previous op notes reviewed

9. Special equipment requested
   Retractors: Balfour, Bookwalter, Pena Nerve stimulator
   Special energy sources – Harmonic scalpel, Argon Beam, Ligasure
   Aesop/Robotic Arm – for Lovvorn Lap Nissen’s
   Dermatome
   Staplers
   Fluoroscopy, Head light, loupes, camera

10. Second assistant designated

11. Pathology notified of need for special handling of specimens

12. Interested consultants notified of day and time of operation

13. Special positioning
Trendelenberg
Bean Bag
Reverse Trendelenburg
Stirrups
Lithotomy
Lateral
Prone

14. Tubes and lines
   Nasogastric tube
   Foley catheter
   Rectal tube

15. Pre-op Instructions for Fluid Restrictions:
   a) NPO Guidelines - Children of all ages may have glucose containing clear fluids up to 2 hours before elective surgery. An effort should be made to offer clear liquids at the time the child is placed NPO.

   Preoperative fluid orders:

<table>
<thead>
<tr>
<th>Age</th>
<th>Order</th>
<th>Time Before Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Solids**</td>
<td>MN or 8hrs before</td>
</tr>
<tr>
<td>All</td>
<td>Infant Formula</td>
<td>6 hours before</td>
</tr>
<tr>
<td>All</td>
<td>Clear Liquids (8 oz. max)*</td>
<td>4am or 2 hours before procedure</td>
</tr>
<tr>
<td>Breast-fed babies</td>
<td>Breast Milk</td>
<td>4am or 4 hours before procedure</td>
</tr>
</tbody>
</table>

   *Clear liquids include clear, sweet beverages such as apple juice, Kool-aid Gatorade, 7-Up, Colas, or Pedialyte. Orange juice or any liquid with pulp or sediment are excluded.
   **Solid foods, milk are excluded the day of surgery regardless of the scheduled time.

   b) Instructions to parents:

   Unpredictable changes in the operating room schedule make implementation of this policy difficult. The following NPO instructions should be given to parents:
   Patients having a morning start time should be
instructed to have no solids, milk, or formula after midnight before procedure. Clear liquids (as defined above) may be offered until 4:00 am. A maximum volume of 8 ounces is allowed.

Patients having afternoon procedures should be instructed to have no solids, milk, or formula after midnight. Clear liquids may be offered up until 9:00 am.

An effort should be made to offer clear liquids at the time the child is placed NPO. In general, because unpredictable changes in the operating room schedule may arise, we recommend that patients over the age of 15yrs remain NPO after midnight on the day before surgery. It is also advisable to have an NPO “cushion” in case the OR schedule allows the case to be started earlier.

L. Bowel Evacuation

1. Preoperative Bowel Regimen – Check with chief resident or attending for specifics.

   The following bowel preps are started 24 hours pre-operatively for certain colonic procedures. Patients for ostomy closure are to have the rectum or mucus fistula irrigated with normal saline until clear. Go-lytely is to be administered by mouth or per nasogastric tube over a four hour period. Please check progress of Go-lytely consumption and administer by gastric tube if necessary.

   - Clear liquid diet
   - Go-lytely 25-50cc/kg over 4 - 6 hours (should end well before midnight), may repeat until clear
   - Neomycin 25 mg/kg @ 1:00 pm, 2:00 pm, and 11:00 pm
   - Erythromycin base 25 mg/kg @ 1:00 pm, 2:00 pm, and 11:00 pm
   - 10 cc/kg 1/4 % Neomycin enema qHS
   - Mefoxin

2. Bowel Regimens for Constipation

   a) Rectal infusion of glycerin

   < 2 years: glycerin suppository
   2 - 5 years: 25 cc glycerin, 25 cc saline
   5 - 10 years: 50 cc glycerin, 50 cc saline, Dulcolax supp
   > 10 years: 100 cc glycerin, 100 cc saline, Dulcolax

   Other options:

   - Milk of Molasses enema (1:1)
   - Babylax (infant Fleets)
Pediatric Fleets
Adult Fleets
MiraLax
Milk of Magnesia

b) Glycerin is toxic to colonic mucosa
   - Always dilute by 50% with saline
   - Check result before ordering further glycerin enemas.
   - DO NOT USE MORE THAN TWICE IN A 24 HOUR PERIOD.
   - BE AWARE GLYCERIN IS A HYPEROSMOLAR SOLUTION AND MAY CAUSE DEHYDRATION.

c) Give 10 cc/kg saline enema two hours after glycerine enema not satisfactory

3. Colonic washout/Irrigation for Hirschsprung’s Enterocolitis
   a) Supplies: large red rubber catheter (at least 20 French), 60 cc catheter tip syringe, large bowl, 1-2 liters warm saline (37°C).
   b) Procedure:
      * Place red rubber catheter in rectum (ask for 20F rectal tube)
      * Infuse 100 cc warm saline and allow stool to run back out catheter. Repeat until colonic irrigation is clear.
      May be repeated several times until stool cleared from colon. These are not enemas (to be left indwelling). What goes in must come out!

M. Blood Product Administration

<table>
<thead>
<tr>
<th>Component</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packed cells</td>
<td>10 cc/kg (1 g Hb increase)</td>
</tr>
<tr>
<td>Plasma</td>
<td>10 cc/kg</td>
</tr>
<tr>
<td>Platelets</td>
<td>5 cc/kg (to increase by 50,000)</td>
</tr>
<tr>
<td>5% albumin</td>
<td>10 cc/kg</td>
</tr>
<tr>
<td>25% salt-poor albumin</td>
<td>4 cc/kg</td>
</tr>
</tbody>
</table>

# cc's PRBCs to achieve desired hematocrit in non-hemorrhaging patient = (desired hematocrit – actual hematocrit) X (kg x 80cc)

N. When Consulted by Other Services

1. Please see all consults promptly. Do not let multiple consults “stack up”, ask for help if necessary, learn to triage the consults, see those possibly requiring urgent operative intervention first (the patient in the ED with ? appendicitis trumps the floor consult with reflux for consideration of fundoplication).

2. If the Emergency Room physician requests that you suture a laceration, please do it cheerfully; if it were your child, you would want a qualified surgeon. For any facial laceration which a pediatrician does not feel comfortable handling, the surgical resident will be asked to evaluate the patient. If, after discussing the nature of the injury with the senior resident, it is concluded that the laceration or facial injury is major, the senior surgical resident will determine if
the “Face” team on call needs to see the patient.

3. For all patients seen in the Emergency Room or Floor Consultations, be sure a Starpanel ped surgery consult note is completed and sent to the appropriate attending for “Attestation” in his/her “sign drafts” bin.

4. Always inform one of the senior residents when a patient is seen in consultation for a surgical problem, even if you happen to have seen the patient with an attending while the senior was tied up elsewhere.

O. Medical Records

1. All patients require a history and physical exam note, daily exam and progress note, and at the time of discharge, a discharge note, discharge order, and dictated discharge summary. Be sure to follow Starpanel templates.

Outline for Dictated Discharge Summaries

Dictations should rarely be longer than one page.

Format:

a) Identify yourself as the dictating physician.
b) Patient's name (spell out full name)
c) Medical record number
d) Date of admission
e) Date of discharge
f) Admitting diagnoses
g) Discharge diagnoses
h) Weight at discharge
i) Attending physician
j) Referring physician's name and mailing address if applicable; these will be listed on the face sheet.

1. Briefly state the reason for and circumstances surrounding the admission.

2. Summarize pertinent +/- findings on PE, lab, imaging studies, and procedures.

3. Summarize the response to treatment and any complications during the hospitalization.

4. Describe the clinical status at the time of discharge as compared to the time of admission.

5. Pending lab studies

6. Discharge instructions:
   a) Medications (dosage, frequency, duration), feeding regimen
   b) Follow-up appointment and reasons to return to hospital
   c) Diet
   d) Activity
   e) Special care needs at home
7. Identify yourself again as the dictating physician and repeat the patient's name, and date of dictation.

8. All medical students' orders and notes must be cosigned by a physician.

9. Patients transferred to another facility must have a dictated discharge summary to go with them. This note can be dictated in advance and/or called in as a STAT dictation.

10. Death summaries are required on all patients who expire. Also, a team member must fill out death certificate and write a brief death note in chart (total=3 documents for any death).