

**Resident Curriculum
PL - 2**

Ward/Inpatient

Patient Care

The competency of patient care includes:

- communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- gather essential and accurate information about their patients
- make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- develop and carry out patient management plans counsel and educate patients and their families
- use information technology to support patient care decisions and patient education
- perform competently all medical and invasive procedures considered essential for the area of practice
- provide health care services aimed at preventing health problems or maintaining health
- work with health care professionals, including those from other disciplines, to provide patient- focused care

Patient Care: Goals and Objectives

Goal #1:

Evaluate and manage, with consultation as indicated, patients with conditions that commonly present to the Inpatient Unit

Objectives:

#1.Endocrine: diabetes (including diabetic ketoacidosis), electrolyte disturbances secondary to underlying endocrine disease

#2.GI/Nutrition: appendicitis, bleeding, cholangitis, complications of inflammatory bowel disease, complications of liver transplantation, cystic fibrosis, gastroenteritis (with/without dehydration), gastroesophageal reflux, hepatic dysfunction (including alpha-1-antitrypsin disease), bowel obstruction, pancreatitis, severe malnutrition

#3.GU/Renal: electrolyte and acid-base disturbances, glomerulonephritis, hemolytic-uremic syndrome, nephrotic syndrome, urinary tract infection/pyelonephritis

#4. Gynecologic: sexual assault

#5. Infectious Disease: cellulitis (including periorbital and orbital), cervical adenitis, dental abscess with complications, encephalitis, HIV, infections in immunocompromised hosts, laryngotracheobronchitis, late presentation of congenital infections (CMV, syphilis, tuberculosis, abscesses), line infection, meningitis

(bacterial or viral), osteomyelitis, pneumonia (viral or bacterial), sepsis/bacteremia (including newborns), septic arthritis, tuberculosis

#6. Pharmacology/Toxicology: common drug poisoning or overdose, dose adjustment for special conditions or serum drug levels

#7. Neurology: acute neurologic conditions (acute cerebellar ataxia, Guillain Barre syndrome, movement disorders), developmental delay with acute medical conditions, seizures, shunt infections

#8. Respiratory: airway obstruction, asthma exacerbation, bacterial tracheitis, bronchiolitis, croup, cystic fibrosis, epiglottitis

#9. Rheumatologic: Henoch Schonlein purpura (HSP), juvenile rheumatoid arthritis (JRA), systemic lupus erythematosus (SLE)

#10. Surgery: pre- and post-op consultation and evaluation of surgical patients (general, ENT, orthopedics, urology, neurosurgical, etc.), special needs of technology-dependent children (blocked trachea, gastric tube dysfunction)

#11. Allergy/Immunology: acute drug allergies/reactions, anaphylaxis, immunodeficiencies, including graft vs. host disease, recurrent pneumonia, serum sickness, severe angioedema

Goal #2:

Technical and therapeutic procedures. Describe the following procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice

Objectives:

1. Anesthesia/analgesia: pain management
2. Arterial puncture
3. Central line: use/care
4. Chest physiotherapy
5. Gastric tube placement (OG/NG)
6. Gastrostomy tube replacement
7. Intravenous line placement
8. Lumbar puncture
9. Medication delivery: inhaled
10. Medication delivery: IV
11. Medication delivery: rectal
12. Pulse oximeter: placement
13. Rectal swab
14. Sterile technique
15. Suctioning: nares
16. Suctioning: oral pharynx
17. Suctioning: tracheostomy
18. Tracheostomy tube: replacement
19. Venipuncture

Medical Knowledge

The competency of Medical Knowledge includes:

- demonstrate an investigatory and analytic thinking approach to clinical situations
- know and apply the basic and clinically supportive sciences which are appropriate to their discipline

Medical Knowledge: Goals and Objectives

Goal #1

Evaluate and manage, with consultation as indicated, patients with conditions that commonly present to the Inpatient Unit

Objectives:

#1. General: failure to thrive, fever of unknown origin

#2 Endocrine: diabetes (including diabetic ketoacidosis), electrolyte disturbances secondary to underlying endocrine disease

#3 GI/Nutrition: appendicitis, bleeding, cholangitis, complications of inflammatory bowel disease, complications of liver transplantation, cystic fibrosis, gastroenteritis (with/without dehydration), gastroesophageal reflux, hepatic dysfunction (including alpha-1-antitrypsin disease), bowel obstruction, pancreatitis, severe malnutrition

#4 GU/Renal: electrolyte and acid-base disturbances, glomerulonephritis, hemolytic-uremic syndrome, nephrotic syndrome, urinary tract infection/pyelonephritis

#5 Gynecologic: sexual assault

#6 Infectious Disease: cellulitis (including periorbital and orbital), cervical adenitis, dental abscess with complications, encephalitis, HIV, infections in immunocompromised hosts, laryngotracheobronchitis, late presentation of congenital infections (CMV, syphilis, tuberculosis, abscesses), line infection, meningitis (bacterial or viral), osteomyelitis, pneumonia (viral or bacterial), sepsis/bacteremia (including newborns), septic arthritis, tuberculosis

#7 Pharmacology/Toxicology: common drug poisoning or overdose, dose adjustment for special conditions or serum drug levels

#8 Neurology: acute neurologic conditions (acute cerebellar ataxia, Guillain Barre syndrome, movement disorders), developmental delay with acute medical conditions, seizures, shunt infections

#9 Respiratory: airway obstruction, asthma exacerbation, bacterial tracheitis, bronchiolitis, croup, cystic fibrosis, epiglottitis

#10 Rheumatologic: Henoch Schonlein purpura (HSP), juvenile rheumatoid arthritis (JRA), systemic lupus erythematosus (SLE)

#11 Surgery: pre- and post-op consultation and evaluation of surgical patients (general, ENT, orthopedics, urology, neurosurgical, etc.), special needs of technology-dependent children (blocked trachea, gastric tube dysfunction)

#12 Allergy/Immunology: acute drug allergies/reactions, anaphylaxis, immunodeficiencies, including graft vs. host disease, recurrent pneumonia, serum sickness, severe angioedema

Goal #2:

Diagnostic and Screening Procedures (Inpatient). Utilize common diagnostic tests and imaging studies appropriately in the inpatient setting.

Objectives:

#1 Demonstrate an understanding of the common diagnostic tests and imaging studies used in the inpatient setting, by being able to

#2 Interpret test results in the context of the specific patient.

#3 Discuss therapeutic options for correction of abnormalities.

Goal#3 :

Use common laboratory studies when indicated for patients in the inpatient setting.

Objectives:

1. CBC with differential, platelet count, RBC indices

2. Blood chemistries: electrolytes, glucose, calcium, magnesium, phosphate

3. Renal function tests

4. Tests of hepatic function (PT, albumin) and damage (liver enzymes, bilirubin)
5. Serologic tests for infection (e.g., hepatitis, HIV)
6. C-reactive protein, erythrocyte sedimentation rate
7. Therapeutic drug concentrations
8. Coagulation studies
9. Arterial, capillary, and venous blood gases
10. Detection of bacterial, viral, and fungal pathogens
11. Urinalysis
12. Cerebrospinal fluid analysis
13. Gram stain
14. Stool studies
15. Other fluid studies (e.g. pleural fluid, joint fluid)

Goal #4:

Use common imaging or radiographic studies when indicated for patients on the inpatient unit.

Objective:

#1 Plain radiographs of the chest, extremities, abdomen, skull, sinuses; Other imaging techniques such as CT, MRI, angiography, ultrasound, nuclear scans, contrast studies (interpretation not expected)

Goal #5:

Monitoring and Therapeutic Modalities (Inpatient). Understand how to use physiologic monitoring and special technology in the general inpatient setting, including issues specific to care of the chronically ill child.

Objectives:

#1 Demonstrate understanding of the monitoring techniques and special treatments commonly used in the inpatient setting, by being able to:

- Discuss indications, contraindications and complications.
- Demonstrate proper use of technique for children of varying ages.
- Determine which patients need continuous monitoring or special monitoring (e.g., neurological checks).
- Interpret and respond appropriately to results of monitoring based on method used, age and clinical situation

#2 Use appropriate monitoring techniques in the inpatient setting.

- Monitoring of temperature, blood pressure, heart rate, respirations
- Cardiac monitoring
- Pulse oximetry

#3 Use appropriately the treatments and techniques used in the inpatient setting.

- Universal precautions
- Nasogastric tube placement
- Administration of nebulized medication
- Injury, wound and burn care
- Oxygen delivery systems
- I.V. fluids
- I.V. pharmacotherapy (antibiotics, antiepileptics, etc.)
- Transfusion therapy

#4 Describe key issues in the inpatient and home management of the technology-dependent child with the

following care needs:

- Tracheostomy
- Chronic mechanical ventilation
- Chronic parenteral nutrition (HAL)
- Gastrostomy tube for feedings
- Permanent central venous catheter

#5 Recognize normal and abnormal findings at tracheostomy, gastrostomy, or central venous catheter sites, and demonstrate appropriate intervention or referral for problems encountered.

#6 Demonstrate the skills for assessing and managing pain.
Use age-appropriate pain scales in assessment.

- Describe indications for use and side effects of common narcotic and non-narcotic analgesics.
- Administer medications to control pain in appropriate dose, frequency and route.
- Describe indications for and use of behavioral techniques and supportive care, and other non-pharmacologic methods of pain control.

Goal #6

Technical and therapeutic procedures. Describe the following procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice

Objectives:

1. Anesthesia/analgesia: pain management
 2. Arterial puncture
 3. Central line: use/care
 4. Chest physiotherapy
 5. Gastric tube placement (OG/NG)
 6. Gastrostomy tube replacement
 7. Intravenous line placement
 8. Lumbar puncture
 9. Medication delivery: inhaled
 10. Medication delivery: IV
 11. Medication delivery: rectal
 12. Pulse oximeter: placement
 13. Rectal swab
 14. Sterile technique
 15. Suctioning: nares
 16. Suctioning: oral pharynx
 17. Suctioning: tracheostomy
 18. Tracheostomy tube: replacement
 19. Venipuncture
- ECG: emergency interpretation

Practice- Based Learning and Improvement

The competency of Practice- Based Learning and Improvement includes:

- analyze practice experience and perform practice-based improvement activities using a systematic methodology

- locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- obtain and use information about their own population of patients and the larger population from which their patients are drawn
- apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- use information technology to manage information, access on-line medical information; and support their own education
- facilitate the learning of students and other health care professionals

Practice- Based Learning and Improvement :Goals and Objectives

Goal #1

Evaluate and manage, with consultation as indicated, patients with conditions that commonly present to the Inpatient Unit

Objectives

#1. Endocrine: diabetes (including diabetic ketoacidosis), electrolyte disturbances secondary to underlying endocrine disease

#2. GI/Nutrition: appendicitis, bleeding, cholangitis, complications of inflammatory bowel disease, complications of liver transplantation, cystic fibrosis, gastroenteritis (with/without dehydration), gastroesophageal reflux, hepatic dysfunction (including alpha-1-antitrypsin disease), bowel obstruction, pancreatitis, severe malnutrition

#3. GU/Renal: electrolyte and acid-base disturbances, glomerulonephritis, hemolytic-uremic syndrome, nephrotic syndrome, urinary tract infection/pyelonephritis

#4. Gynecologic: sexual assault

#5. Infectious Disease: cellulitis (including periorbital and orbital), cervical adenitis, dental abscess with complications, encephalitis, HIV, infections in immunocompromised hosts, laryngotracheobronchitis, late presentation of congenital infections (CMV, syphilis, tuberculosis, abscesses), line infection, meningitis (bacterial or viral), osteomyelitis, pneumonia (viral or bacterial), sepsis/bacteremia (including newborns), septic arthritis, tuberculosis

#6. Pharmacology/Toxicology: common drug poisoning or overdose, dose adjustment for special conditions or serum drug levels

#7. Neurology: acute neurologic conditions (acute cerebellar ataxia, Guillain Barre syndrome, movement disorders), developmental delay with acute medical conditions, seizures, shunt infections

#8. Respiratory: airway obstruction, asthma exacerbation, bacterial tracheitis, bronchiolitis, croup, cystic fibrosis, epiglottitis

#9. Rheumatologic: Henoch Schonlein purpura (HSP), juvenile rheumatoid arthritis (JRA), systemic lupus erythematosus (SLE)

#10. Surgery: pre- and post-op consultation and evaluation of surgical patients (general, ENT, orthopedics, urology, neurosurgical, etc.), special needs of technology-dependent children (blocked trachea, gastric tube

dysfunction)

#11. Allergy/Immunology: acute drug allergies/reactions, anaphylaxis, immunodeficiencies, including graft vs. host disease, recurrent pneumonia, serum sickness, severe angioedema

Goal #2:

Diagnostic and Screening Procedures (Inpatient). Utilize common diagnostic tests and imaging studies appropriately in the inpatient setting.

Objective:

#1 Explain the indications for and limitations of each study.

#2 Know or be able to locate age-appropriate normal ranges (lab studies).

Systems Based Practice

The competency of System Based Practice includes:

- understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- practice cost-effective health care and resource allocation that does not compromise quality of care
- advocate for quality patient care and assist patients in dealing with system complexities
- know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

Systems Based Practice :Goals and Objectives

Goal #1

Evaluate and manage, with consultation as indicated, patients with conditions that commonly present to the Inpatient Unit

Objectives:

1. Endocrine: diabetes (including diabetic ketoacidosis), electrolyte disturbances secondary to underlying endocrine disease

#2. GI/Nutrition: appendicitis, bleeding, cholangitis, complications of inflammatory bowel disease, complications of liver transplantation, cystic fibrosis, gastroenteritis (with/without dehydration), gastroesophageal reflux, hepatic dysfunction (including alpha-1-antitrypsin disease), bowel obstruction, pancreatitis, severe malnutrition

#3. GU/Renal: electrolyte and acid-base disturbances, glomerulonephritis, hemolytic-uremic syndrome, nephrotic syndrome, urinary tract infection/pyelonephritis

#4. Gynecologic: sexual assault

#5. Infectious Disease: cellulitis (including periorbital and orbital), cervical adenitis, dental abscess with

complications, encephalitis, HIV, infections in immunocompromised hosts, laryngotracheobronchitis, late presentation of congenital infections (CMV, syphilis, tuberculosis, abscesses), line infection, meningitis (bacterial or viral), osteomyelitis, pneumonia (viral or bacterial), sepsis/bacteremia (including newborns), septic arthritis, tuberculosis

#6. Pharmacology/Toxicology: common drug poisoning or overdose, dose adjustment for special conditions or serum drug levels

#7. Neurology: acute neurologic conditions (acute cerebellar ataxia, Guillain Barre syndrome, movement disorders), developmental delay with acute medical conditions, seizures, shunt infections

#8. Respiratory: airway obstruction, asthma exacerbation, bacterial tracheitis, bronchiolitis, croup, cystic fibrosis, epiglottitis

#9. Rheumatologic: Henoch Schonlein purpura (HSP), juvenile rheumatoid arthritis (JRA), systemic lupus erythematosus (SLE)

#10. Surgery: pre- and post-op consultation and evaluation of surgical patients (general, ENT, orthopedics, urology, neurosurgical, etc.), special needs of technology-dependent children (blocked trachea, gastric tube dysfunction)

#11. Allergy/Immunology: acute drug allergies/reactions, anaphylaxis, immunodeficiencies, including graft vs. host disease, recurrent pneumonia, serum sickness, severe angioedema

Goal #2:

Diagnostic and Screening Procedures (Inpatient). Utilize common diagnostic tests and imaging studies appropriately in the inpatient setting.

Objective:

#1 Recognize cost and utilization issues.