Restoring Hope and Freedom
Mary Free Bed
Rehabilitation Hospital

Information for Pediatric Clinicals

The Charge Nurse is notified of any needs.

Locked Unit: Pediatric unit is a locked unit for patient safety. Do not badge anyone in. Visitors can be directed to the West Addition Welcome Desk, who will verify identities of those on the approved visitor list and escort them to the unit.

Hugs Tag: Hugs is a locator system and is used for all patients under 18 years old. Only MFB staff members are allowed to modify Hugs tags or put patients on transport to allow them to leave the unit.

Broselow System: Broselow is a measuring system used for medication dosing in the event of an emergency for children under 5 ft. Patients are measured on admission and monthly throughout their stay. Kanga-Band (Broselow Bracelet) and Lucky Charm at the head of the bed are updated when height changes occur. In the event of a Pediatric Code, press the Code Blue button at the head of the patient's bed and state it is a **Pediatric Code Blue**.

Weight: Weights are taken Mondays and Thursdays and are recorded in kilograms. Weights are done without braces if possible, if no contraindications to removing brace.

Medications: Medications are dosed by pharmacy for kids 12 & under according to their weight. (Tabs split, liquids drawn up by pharmacy.) Ask questions if you are unsure of dosing. Make sure medication caps, syringes, and packaging are disposed of properly and will not be accidentally swallowed.

Strict I & O: All pediatric patients are on **Strict I & O** unless ordered differently. All diapers are weighed for accurate output unless the patient has a bowel movement. Many patients have fluid intake goals. Be alert for special diet types, fluid consistencies, or adaptive feeding tools like special spoons, sippy cups, bottles, etc.

Mickey Buttons: Many pediatric patients will have Mickey buttons. The extension tubing through which feedings and medication is given is removable. Children often tolerate smaller flushes at a time and need to have small flushes throughout the shift to meet fluid goals.

Catheterization: Adult Straight Catheterization kits are used for cathing children; however, you must obtain a smaller catheter as directed (6, 8 or 10 fr) and discard the 14 French catheter.

Labs: EMLA Cream is used to numb the skin for children before blood draws or injections. Apply a nickel sized amount to 2 sites and cover with Tegaderm 1-2 hours prior to pokes. Attempt to collaborate with Child Life or Rec Therapy prior to procedures to ease the child's anxiety and assist with coping.

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Normal Vital Signs for Pediatrics:

AGE	HR	BP	RR
Newborn	95-145	60-90 20-60	40
1-5 months	115-190	74-100 50-70	24-30
6-11 months	110-180	74-100 50-70	24-30
1 year	100-160	80-112 50-80	20-24
2-3 years	90-150	80-112 50-80	16-22
4-5 years	60-135	82-110 50-78	14-20
6-9 years	70-115	84-120 54-80	12-20
10-12 years	55-110	94-140 62-88	12-20
13-14 years	55-105	94-140 62-88	10-14

Temperature: Febrile if greater than 100.4 Fº or 38.0 Cº orally and 99.4 Fº or 37.4 Cº axillary.

Oxygen Sat: Maintain O2 sat above 92% unless otherwise ordered.

Children are not usually awakened for vital signs or procedures before 0800. Vitals should be taken while the child is calm for several minutes. Otherwise they will be falsely elevated. Do not record them. Report to the RN any abnormal findings.

Pain: Young patients may not be able to verbalize pain. Parents can relay patient's history of pain, typical reaction, or sign. FLACC Scale and FACES Scale are used for patients who are unable to rate their pain reliably using a 0-10 Number Scale.

Restraints: Cribs are not a restraint. Side rails x4 is not a restraint for children under 10 years old. MFB staff will manage all restraints.

Behavior Plans: Behavior plans provide consistency among caregivers and may include things such as rewards or sticker charts for positive behaviors, specific "time out" guidelines, structured activity schedules, and electronics rules.

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Common Pediatric Diagnoses

Spina bifida is a group of conditions where the spinal column doesn't close completely before birth. Babies are born with the lower part of their spine and the covering (meninges) outside the body (myelomeningocele). It must be surgically closed. Sometimes there are issues with neural tube closure at the head, as well. Hydrocephalus (excess cerebral spinal fluid, CSF in the head) may occur and patients may have a VP shunt (a tube that drains excess fluid from the head to the abdomen). Patients with spina bifida often have an allergy or sensitivity to latex. They may also have seizures.

Myelomeningocele causes injury to the spinal cord, so you see similar issues with limited sensation and ability to move the legs, and neurogenic bowel and bladder. Children may have had bowel or bladder augmentation surgeries to make it easier to go to the bathroom. Mitroffanoff bladder augmentation is a surgery where the appendix is used to form a passage from the bladder that connects to the skin of the abdomen, often inside the belly button. A catheter is passed through the stoma directly into the bladder to empty it. A MACE (Malone anterograde continence enema) is a similar procedure where a catheter can be passed through a stoma in the abdomen. A flushing enema of water (sometimes with other meds) is administered through the catheter and stool is passed through the rectum.

Cerebral palsy (CP) is a term used to describe a collection of disorders caused by abnormal brain development or damage to the brain that occurs around the time of birth or early in life. Cerebral palsy causes problems with muscle tone, movement, balance and/or coordination. Children with CP may also have asthma, seizures, and developmental delays. Children with CP often come to MFB for intensive therapy after a Multi-level Ortho Surgery or a Dorsal Rhizotomy, or sometimes after a baclofen pump placement or for Botox injections, though these are usually outpatient treatments.

Multi-Level Ortho Surgery: Single-Event Multi-Level Surgery (SEMLS) corrects multiple bone and soft tissue abnormalities that are caused by spastic muscles that cause bone growth out of alignment. Patients may have tendons lengthened and slivers cut out of incorrectly angled bones, for example. They usually go home after surgery with casts, and 6 weeks later follow up at MFB outpatient clinic to have the casts removed and be cleared for weight bearing, then they are admitted to MFB. Kids usually wear AFOs and knee immobilizers to promote healing with the right alignment.

Dorsal Rhizotomy: Selective Dorsal Rhizotomy (SDR) surgery is a procedure that treats muscle spasticity caused by abnormal communication among the brain, spinal cord, nerves and muscles. SDR surgery corrects muscle spasticity by cutting the nerve rootlets in the spinal cord that are sending abnormal signals to the muscles. Kids arrive several days post-op with a lower back incision that can't get wet. They are often painful. Swelling around the spinal cord can cause symptoms similar to SCI such as incontinence, weakness, and impaired sensation, that usually resolve in a few days. They are not allowed to flex or twist their trunk to the extremes, stretch their hamstrings

beyond what is comfortable, or bend their hips past 90*. Kids who have an SDR are usually about 4-8 years old.

Transverse Myelitis is a condition caused by the inflammation of the covering of the spinal cord. It usually comes on fairly quickly with symptoms of weakness or paralysis, pain, altered sensation, and bladder and bowel changes. It often occurs after recovery from an infection. People may receive steroids or have plasmapheresis. They may recover completely or may continue to have paralysis and associated spinal cord injury symptoms.

Acute Disseminated Encephalomyopathy (ADEM) is similar to Transverse Myelitis in that it is an inflammation of the covering of the brain following an infection. Symptoms include fever, fatigue, headache, weakness and poor coordination, nausea and vomiting, and in the most severe cases, seizures and coma. ADEM is more common in children than adults, and a majority of people make a complete recovery.

Guillian-Barré Syndrome is a condition where the body's immune system attacks the peripheral nervous system. It may occur after another infection. Numbness, tingling, and weakness usually start in the legs and progress upwards fairly rapidly, causing paralysis, bladder and bowel retention, and sometimes paralysis of chest wall muscles. Patients receive plasmapheresis and/or immunoglobin (IVIg) to remove the attacking antibodies and replace with healthy ones. Most people recover with only mild changes in sensation, though some continue to have significant paralysis, sensory and bladder & bowel disruptions.

Complex Regional Pain Syndrome (CRPS) formerly Reflex Sympathetic Dystrophy "is a chronic pain condition most often affecting one of the limbs, usually after an injury or trauma to that limb. CRPS is believed to be caused by damage to, or malfunction of, the peripheral and central nervous systems….CRPS is characterized by prolonged or excessive pain and mild or dramatic changes in skin color, temperature, and/or swelling in the affected area." Patients with CRPS have often assumed a sick role and are very preoccupied with pain. We have a specific order set for CRPS that includes schedule guidelines, not asking patients about pain, guidelines about visiting and other things. CRPS is a type of Amplified Musculoskeletal Pain Syndrome.

Conversion Disorder is a physical manifestation of psychological stress or trauma. Patients may present with weakness or paralysis, tremors, difficulty swallowing, altered special senses, seizures, or other neuro problems. No indications of injury or pathology are found in testing, but a history of stress or trauma is present. Symptoms may come and go, but they are not under the patient's control. (Faking or exaggerating symptoms to meet other psych needs is called factitious disorder or malingering.)

Non-accidental traumas are injuries from apparent abuse. This includes shaken baby syndrome, fractures in very young children, blunt force traumas, bruises, and burns. Brain injuries common to shaken babies are subdural hematoma, retinal hemorrhage and encephalopathy.