# OUTPATIENT REFERRAL GUIDELINES

**1 April 2019**

سدرة للطب
Sidra Medicine

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# 1. INTRODUCTION

Sidra Medicine provides a fully comprehensive range of pediatric services and a select range of key women and adult services, as set out in the table below. Sidra Medicine is one of several healthcare organizations in Qatar that has widened the choice for healthcare services, and financial counselors will advise patients of their financial options and provide support throughout the process. Patients can call 40030899 between 7.00 am to 7.00 pm, or email financialcounseling@sidra.org.

The next section sets out the referral process, for both electronic and paper referrals. Self-referrals are available for women's services. For urgent referrals, Sidra Medicine seeks to secure an appointment date within three (3) working days and offer an appointment within 30 calendar days from the date of referral.

The third section sets out the outpatient referral guidelines for each specialty, which include the most common symptoms indicative of the need to refer to Sidra Medicine. Sidra Medicine schedules appointments based on clinical appropriateness and seeks to redirect patients who can be more effectively cared for elsewhere. Sidra Medicine supports an integrated, community-based, and patient and family-centered model of care, across the public and private sectors.

| Sidra Service | | |
|---|---|---|
| **Pediatric Services** | **Women's Services** | **Combined Services** |
| • Adolescent Medicine<br>• Allergy and Immunology<br>• Cardiology and Cardiac Surgery<br>• Child and Adolescent Mental Health<br>• Complex Care<br>• Dermatology<br>• Developmental Pediatrics<br>• Endocrinology<br>• Gastroenterology<br>• General Pediatrics<br>• General and Thoracic Surgery<br>• Hematology and Oncology<br>• Infectious Diseases<br>• Neonatology High-Risk Infant Follow-Up<br>• Neonatology Prenatal Consult<br>• Nephrology<br>• Neurology<br>• Neurosurgery<br>• Ophthalmology and Orthoptics<br>• Optometry<br>• Orthopedics<br>• Otolaryngology<br>• Plastic and Craniofacial Surgery<br>• Pulmonology<br>• Rehabilitation Medicine<br>• Rheumatology<br>• Sidra Child Advocacy Program (S-CAP)<br>• Urology | • Gynecology<br>• Maternal Fetal Medicine<br>• Obstetrics<br>• Perinatal Mental Health<br>• Reproductive Medicine | • Diagnostic Imaging/Radiology |

Notes: List is correct as at 1 April 2019. Table refers to Sidra services only.

# 2. REFERRAL PROCESS

## 2.1 Electronic Referrals

- Step 1 Select option titled *Add*, under menu option *Orders*.
- Step 2 For children, search for "Sidra" and select "Referral to Sidra Pediatric Services". For women, search for "gynecology" or "obstetrics". Select "Referral to Gynecology" for the Gynecology and Reproductive Medicine service, and "Referral to Obstetrics" for all other women's services. There will be a unified women's order shortly. Electronic referrals are not possible for the Diagnostic Imaging/Radiology service.
- Step 3 Complete all required fields, including a distinctive *Reason for Referral*, and a clinically justifiable level of *Priority.* For women, also select 'Sidra Hospital' in the *Referring To* field.
- Step 4 Add patient's clinical details in the *Special Instruction* field. For women, also add para, gravida, and expected date of delivery.
- Step 5 Finalise the order by selecting option titled *Sign*.

## 2.2 Paper Referrals

- Step 1 Use the referral forms in the next pages, or download a Referral Form, at: http://www.Sidra.org/wp-content/uploads/PDFs/referral-form fillable.pdf. If necessary to use Hamad Medical Corporation (HMC) referral forms, please mark them 'For Sidra', for efficiency.
- Step 2 Complete all required fields, including a distinctive *Reason For Referral*, and a clinically justifiable level of *Priority*, the patient's contact details, and the referring physician's name, signature and contact details. Please use clearly legible handwriting, indicate clinical service for referral, and document appropriate clinical history to justify the requested imaging exams.
- Step 3 Print three copies; one each for Sidra Medicine, the patient, and the referrer.
- Step 4 Sign, stamp, and date the hard copy for Sidra Medicine.
- Step 5 Fax copy to +974 4003 6024, and diagnostic imaging referral forms to DIreferral@sidra.org. If necessary, you can e-mail it to OPCReferrals@sidra.org, or courier it to the Barwa Referral Booking Management Office.

## 2.3 Referrals to the Emergency Department

- Step 1 Call the senior attending physician in the Sidra Medicine Emergency Department on 40031136 and 40031137. For the best and safest patient care, this is required of all internal and external referring physicians for all those patients which will visit the Sidra Medicine Emergency Department.
- Step 2 Provide a summary of the patient's problems and current condition, acute treatments recently administered, and any specific problems reasonably expected to require attention.

Sidra Medicine
Center P.O. Box 26999, Doha, Qatar
www.sidra.org

# REFERRAL FORM

**Patient Details**

HC.No. .....
Name .....
Nationality .....
Date of Birth DD/MM/YYYY .....
Age in Years _____, Gender ☐ M ☐ F

Mobile .....
Tel.(Home) .....
Tel.(Work) .....
Relation .....

☐ STAT
☐ Routine
☐ Urgent
☐ Schedule

Patient Qatar ID | | | | | | | | | | | | | | |

Referring Physician's Name .....
Referring Center & Number ..... Tel. ..... Fax .....
Referring to Specialty .....

History .....

Examination / Investigation (including Laboratory and Radiology results with dates) .....

Treatment given (including Current Medication) .....

Provisional Diagnosis .....

Reason / Purpose for Referral .....

Date DD/MM/YYYY .....
Time HR : MIN .....

Referring Physician's Signature and Stamp

**For Physician use only**

Patient seen on (date) DD/MM/YYYY ..... ☐ Patient did not show

Initial Diagnosis .....

Recommendation and Plan .....

**Other care needed** ☐ Referral Recommendation ☐ Follow-up ☐ Discharge to

**Comments** .....

Patient's Signature

Date DD/MM/YYYY .....
Time HR : MIN .....
Contact No. .....

Physician's Signature and Stamp

1. Sidra copy 2. Referrer's copy 3. Patient copy

سدرة للطب
Sidra Medicine

SIDRA MEDICINE
PO.BOX 26999, DOHA, QATAR
WWW.SIDRA.ORG

# RADIOLOGY REQUEST

**Please answer the following for ALL requests: INCOMPLETE/ILLEGIBLE FORMS WILL BE RETURNED.**

Radiology Main Desk Phone Number: .....

| | | |
|---|---|---|
| **Requesting Physician:** | Family name: | QID: |
| | First Name: | HC Number: |
| | Address: | Encounter: |
| **Ward / Clinic:** | Date of Birth: | ☐ Male ☐ Female |
| | Phone: | |
| | Email: | |
| **Clinical details/Relevant history** (Include reason for urgency if applicable) | Clinical question: | |
| | Examination requested:<br>☐ CT ☐ MRI ☐ X-ray ☐ US<br>Body part:.....<br>☐ Right ☐ Left ☐ N/A | |
| **Signature** | **Date** | **Physician Contact number:** |
| **Pregnancy status** if applicable ☐ Pregnant ☐ Not Pregnant Gestation weeks: | | **LMP** |
| **Patient alerts:** MRSA, Blind, Deaf, etc. | | |
| State any known and type of **allergies**, especially to Radiographic contrast media. | | |

**Please answer the following ONLY for examinations which may require the administration of IV contrast agents.**

**Renal impairment or failure** ☐ YES ☐ NO If YES, specify the eGFR..... or Serum Creatinine.....

Date of result: .....

On **Metformin** ☐ YES ☐ NO **Asthmatic** ☐ YES ☐ NO

**Please answer the following ONLY for MRI examinations**

Cardiac pacemaker ☐ Yes ☐ No Programmable hydrocephalus shunt? ☐ Yes ☐ No

Any operations involving the use of metal clips, pins, stent or implants? ☐ Yes ☐ No

If known, specify date and relevant details including type of clip, implant etc. .....

**For Departmental use only**

Vetting stamp/protocol here

Vetted by (Print Name): ..... Signature: ..... Date: .....

# 3. REFERRAL GUIDELINES

This section sets out the most common symptoms indicative of the need to refer to Sidra Medicine. The symptoms are grouped by specialty, and the specialties are grouped into three categories—pediatric services, women's services, and combined services. Within each category, the specialties are listed in alphabetical order.

Unless specifically stated otherwise in each referral guideline, Sidra Medicine accepts referrals for pediatric patients from 0-18 years old and women of all ages. It is recommended that these guidelines are used in conjunction with national guidelines, organizational service scopes, and clinical judgement.

# PEDIATRIC SERVICES

## 3.1 Adolescent Medicine

| Age Group | Exclusions |
|---|---|
| • 10 - 18 years old for neurobehavioral disorders<br>• 12 - 18 years old for all other diagnoses | • known substance use and addictive disorder<br>• actively suicidal patients<br>• delusions/ hallucinations<br>• moderate to severe aggression<br>• gender dysmorphia and gender non-conformity<br>• obesity |

| Symptoms | Known Diagnoses |
|---|---|
| • body image and self-concept issues related to medication or illness<br>• chronic medical illness, with complex transition to adult care<br>• chronic medical illness, with low mood, self-harm behavior, and compliance issues<br>• chronic medical illness, with menstrual dysfunction<br>• disordered eating (significant weight loss or failure to gain expected weight provided that all organic causes for weight loss have been ruled out, suspected anorexia nervosa, bulimia nervosa, avoidant restrictive food intake disorders)<br>• mild to moderate hyperactivity, impulsivity and inattention that affect functioning at home and/or school<br>• mild to moderate autism spectrum disorder with behavioral concerns<br>• psychological factors affecting other medical conditions (e.g., asthma, cystic fibrosis, diabetes with depression, anxiety, family dysfunction, adherence, compliance to treatment)<br>• school refusal and failure<br>• uncomplicated mild to moderate anxiety<br>• uncomplicated mild to moderate depression | • eating disorders (anorexia nervosa, bulimia nervosa, avoidant restrictive food intake disorder) |

## 3.2 Allergy and Immunology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • chronic or recurrent dermatitis not responsive to topical hydrocortisone, or with known food trigger<br>• chronic or recurrent episodes of urticaria, and/or angioedema<br>• delayed separation of the umbilical cord, by over 2 weeks, especially with infection or elevated neutrophil count<br>• urticaria, angioedema, wheezing, vomiting and/or hypotension after food ingestion, drug administration, or insect bite<br>• recurrent of wheezing, cough and/or shortness of breath (≥ 3 episodes)<br>• sneezing, rhinorrhea and/or conjunctivitis that is seasonal or chronic (unresponsive to standard doses of antihistamines)<br>• infections that are chronic (not responding to therapy), recurrent (2 – 5 episodes depending on severity), or opportunistic (unusual), including otitis media, sinusitis, pneumonia, candidiasis, meningitis, abscesses, or family history of primary immunodeficiency or early death from infection | • allergic rhinoconjunctivitis<br>• anaphylaxis with or without previously defined trigger<br>• dermatitis (suspected atopic)<br>• drug allergy, especially if requiring confirmation<br>• eosinophilic esophagitis and/or gastroenteritis<br>• food allergies, except milk-induced proctocolitis<br>• primary immunodeficiency disease<br>• insect hypersensitivity<br>• persistent, or intermittent seasonal, asthma<br>• recurrent otitis media (≥ 5 in a year)<br>• recurrent sinusitis (≥ to 2 in a year)<br>• urticaria/ angioedema/ mastocytosis<br>• recurrent pneumonia (≥ 2 in a year) |

## 3.3 Cardiology and Cardiac Surgery

| Age Group | Exclusions |
|---|---|
| • <18 years old for acquired and congenital heart disease<br>• >18 years old with known congenital/structural heart disease including arrhythmias since childhood<br>• >18 years old with suspected congenital/structural heart disease from the HMC Heart Hospital after initial investigation | • history of intermittent cyanosis with no other cardiac finding<br>• chest pain not following the pathway provided below for recurrent chest pain |

**Symptoms**

- abnormal electrocardiogram suggestive of arrhythmias, prolonged QT, pathologic q waves/ST-T changes or significant ventricular hypertrophy or abnormal electrocardiogram after discussing with cardiologist on-call where the service is available
- abnormal transcutaneous saturations: persistence < 94 % in infants < 6 months (on repeated measurements), once lung disease has been ruled out or low saturation highly suggestive of cardiac disease (history of intermittent cyanosis with no other cardiac finding is excluded)
- cardiac evaluation for established genetic or systemic disease that is known to be associated with cardiac involvement, e.g., Marfan, Turner, Down, DiGeorge, Noonan, muscular dystrophy, Williams syndromes, etc.)
- cardiac evaluation as part of work-up or criteria to diagnose genetic, systemic, familial or hereditary disease such as but not limited to metabolic disease, cardiomyopathy, history of aborted sudden cardiac death in < 35 years of age in the family
- cardiac evaluation prior to initiation of therapy or management that might affect heart function or hemodynamic
- cardiomegaly on chest X-ray after confirmation with radiologist
- diagnosed hypertension after nephrology evaluation to check the effect of high pressure on the heart
- evaluation of cardiac surgery for vascular abnormalities, e.g., vascular ring
- heart murmur after correction of anemia in asymptomatic patient or resolution of febrile illness that has no cardiac involvement
- physical signs suggestive of cardiac failure, e.g., tachycardia, tachypnea, gallop or liver enlargement
- recurrent chest pain, that is highly suggestive of cardiac involvement and based on the following pathway for investigation of cardiac causes: http://www.chop.edu/clinical-pathway/chest-pain-clinical-pathway
- more than one palpitation
- (pre)syncope without neurological etiology, suggestive of vasovagal episodes or arrhythmia with parental concern; in process of creating a pathway or initial investigation prior to referral.
- variety of symptoms suggestive of cardiac involvement after initial investigations to exclude non-cardiac causes (e.g., cyanosis, shortness of breath and failure to thrive)
- established (congenital/non-congenital) heart disease
- other symptoms suggestive of cardiac disease that have not been included above can be referred after discussing with the on-call cardiologist where the service is available
- adult patients with paravalvar mitral and/or aortic leaks with symptoms of heart failure or hemolysis for leak closure

## 3.4 Child and Adolescent Mental Health

| Age Group | Exclusions |
|---|---|
| • 5 - 18 years old | • eating disorders<br>• known substance abuse problems<br>• < 5 years old for suspected mental health issues; refer to Sidra Medicine's General Pediatrics per their criteria<br>• < 5 years old for suspected or known autism, and attention deficit hyperactivity disorder; refer to Sidra Medicine's Developmental Medicine per their criteria |

| Symptoms | Known Diagnoses |
|---|---|
| • moderate or severe aggression, and severe tantrums<br>• hyperactivity, impulsivity, inattention<br>• sad mood and self-harming behaviors<br>• anxiety and nervousness<br>• concerns about autism spectrum disorders<br>• sudden change in day-to-day functioning (e.g., in academic performance, irritability, isolation)<br>• post-discharge psychiatric care<br>• children experiencing hallucinations/ delusions<br>• children in need of psychiatric medications including antidepressants, antipsychotics, anxiolytics, stimulants etc.<br>• grief symptoms after the loss of a loved one that are persistent for more than 3 months, including but not limited to the following:<br>  • suicidal thoughts<br>  • unrelenting depression<br>  • loss of appetite<br>  • panic attacks<br>  • hopelessness<br>  • anhedonia<br>  • increased irritability and anger<br>  • frequent nightmares<br>  • intrusive thoughts<br>  • lack of motivation<br>  • psychotic symptoms<br>• psychological factors affecting other medical conditions | • autism spectrum disorder<br>• attention deficit hyperactivity disorder<br>• disruptive behavior disorders<br>• oppositional defiant disorder<br>• depressive disorders<br>• bipolar disorder<br>• psychosis<br>• obsessive compulsive disorder<br>• generalized anxiety disorder<br>• separation anxiety disorder<br>• post-traumatic stress disorder<br>• panic disorder<br>• adjustment disorders<br>• conversion disorder<br>• tic disorders |

## 3.5 Complex Care

| Age Group | Exclusion |
|---|---|
| • < 16 years old | • 16 years old and over<br>• conditions fitting into pre-existing clinic coordinating care between all required providers (e.g., clinics on eating disorders, cystic fibrosis, rehabilitation medicine, spina bifida, oncology, down syndrome, or neuromuscular clinic) |

**Symptoms**

Specialty Background

- shared management model designed to bring benefit to children living with multiple complex chronic conditions and life limiting diseases
- aims to close any gaps in care, improve coordination of care, foster collaboration, and achieve excellence in the delivery of services to, and the outcomes for, every child in our care who lives with complex long-term medical conditions

Symptoms and Referral Criteria

- complex chronic medical conditions, with multisystem involvement, multiple medications, multiple specialty inputs, frequent and prolonged hospital admissions, dependency on advanced technology, and need for optimal coordination of care and close monitoring
- dependency at least part of each day on "non-invasive" ventilation techniques, e.g., bi-level positive airway pressure mode/ continuous positive airway pressure, and on other devise-based support, including tracheostomy tube, nasopharyngeal tube, suctioning, home oxygen support, tube feeding
- health problems affecting ≥ 3 organ systems and ≥ 3 medical sub-specialists involved in child's care

## 3.6 Dermatology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • N/A<br>• any disease of hair, nail and mucus membrane that can be diagnosed or treated at primary care |

| Symptoms | Known Diagnoses |
|---|---|
| Any Symptoms Indicative of Diseases of Hair, Nail and Mucus Membrane that Cannot be Diagnosed or Treated at Primary Care | Any Diseases of Hair, Nail and Mucus Membrane that Cannot be Treated at Primary Care |
| • acute and chronic dermatitis<br>• inflammatory skin conditions and rashes<br>• more than one or recalcitrant skin infection<br>• blistering disorders<br>• hemangiomas and vascular malformations<br>• birthmarks<br>• disorders of pigmentation<br>• genetic skin diseases<br>• disorders of the hair, nails and mucous membranes<br>• benign or malignant skin tumors for diagnosis | • moderate and severe atopic dermatitis<br>• moderate and severe psoriasis<br>• moderate and severe acne/ rosacea/ perioral dermatitis<br>• disfiguring, ulcerated or complicated infantile hemangiomas |

## 3.7 Developmental Pediatrics

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • physical disability without learning difficulties<br>• mental health conditions<br>• ongoing therapy<br>• existing patients at HMC's Rumailah Hospital Child Development Center |

| Symptoms | Known Diagnoses |
|---|---|
| Initial multidisciplinary assessment for the following:<br><br>• delay in academic skills (performing two years below expected for chronological age)<br>• moderate to severe delay in two or more of the following skills: gross motor, fine motor, communication and languages, self-help, social skills<br>• difficulties with attention and concentration severe enough to prevent academic progress (children under 5 years old)<br>• isolated moderate or severe delay in speech and language when associated with one or more of the autism red flags (children under 5 years old)<br>• permanent severe hearing or vision impairment that needs initial specialist developmental assessment to exclude or detect associated conditions | Initial multi-disciplinary follow-up until stability for the following:<br><br>• speech and language disorders<br>• attention deficit hyperactivity disorder (children under 5 years old)<br>• autism spectrum disorder<br>• congenital idiopathic microcephaly<br>• congenital microcephaly and other genetic syndromes known to be associated with developmental delay<br>• Down syndrome<br>• global developmental delay<br>• intellectual disability<br>• other genetic disorders speech and language disorders<br>• associate with development delay<br>• sensorineural hearing loss |

## 3.8 Endocrinology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • excessive thirst and frequent urination with any of the following:<br>▪ elevated random blood glucose > 140 mg/dl<br>▪ fasting blood glucose > 100 mg/dl<br>▪ Hba1c > 5.7<br>▪ diluted urine < 300 mOsm/kg<br>• precocious puberty or premature female thelarche<br>▪ girls < 8 years: breast development<br>▪ boys < 9 years: testicular enlargement<br>• premature adrenarche as follows:<br>▪ girls < 7 years with one or more of the following signs: pubic hair, axillary hair, body odor, clitoral enlargement (not breast development)<br>▪ boys < 7 years with one or more of the following signs: pubic hair, axillary hair, body odor, penile enlargement, accelerated growth (not testicular enlargement < 4 ml or < 2.5 cm)<br>• delayed puberty as follows:<br>▪ girls: no breast development by 13 years of age, or no menses by 15 years of age<br>▪ boys: no testicular enlargement by 14 years of age (< 4 ml or < 2.5 cm)<br>• short stature, for either of the following:<br>▪ current height less than 3rd percentile for age<br>▪ crossing percentiles on repeated growth measurements<br>• obesity<br>▪ darkening and thickening of skin around neck, elbow, waist, knuckles, axilla<br>▪ irregular menses<br>• unexplained weight loss or gain<br>• hyperpigmentation of the skin and chronic fatigue not explained by usual causes<br>• hypoglycemia<br>• salt cravings and hypotension<br>• bulging eyes, irritability and mood changes (Graves' ophthalmopathy)<br>• goiter (enlargement of the thyroid gland)<br>• heat intolerance with tachycardia<br>• cold intolerance with bradycardia<br>• tremors with unexplained weight loss | • type 1 diabetes mellitus<br>• type 2 diabetes mellitus<br>• other types of diabetes<br>• growth disorders<br>• puberty disorders<br>• pituitary disorders<br>• thyroid disorders<br>• calcium and parathyroid disorders<br>• adrenal disorders and hypoglycemia<br>• disorders of sexual development<br>• obesity<br>• long-term endocrine effect of pediatric cancer |

## 3.9 Gastroenterology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • abdominal distension, with associated obstructive symptoms<br>• altered bowel habits, e.g., overflow diarrhea (see General Pediatrics for specific constipation symptoms for referral)<br>• conjugated jaundice after doing split bilirubin<br>• dyspepsia<br>• dysphagia<br>• faltering growth and weight loss with gastroenterology symptoms<br>• gastrointestinal bleeding (refer to General Pediatrics when associated with anal fissure and constipation)<br>• hepatomegaly when associated with abnormal liver function tests, and/or any signs of chronic liver disease<br>• liver dysfunction<br>• malnutrition with gastrointestinal symptoms<br>• recurrent vomiting with one or more of the following red flags:<br>▪ haematemesis after exclusion of swallowed blood from nose bleed or cracked nipple<br>▪ blood in stool after exclusion of infective or acute surgical causes, e.g., intussusception<br>▪ chronic diarrhea after no response to cow's milk protein exclusion<br>▪ high state or risk of atopy if no response to cow's milk protein exclusion<br>• splenomegaly when associated with abnormal liver function tests, and/or any signs of chronic liver disease | • achalasia<br>• alpha-1-antitrypsin deficiency<br>• autoimmune enteropathies<br>• autoimmune hepatitis<br>• biliary atresia<br>• celiac disease<br>• chronic liver diseases<br>• complex food allergy<br>• congenital enteropathies<br>• early onset inflammatory bowel diseases<br>• end-stage liver disease<br>• eosinophilic gastrointestinal diseases<br>• functional and neuromuscular gastrointestinal disorders<br>• functional gastrointestinal disorders<br>• gastro-esophageal reflux with one or more of the following red flags:<br>▪ haematemesis after exclusion of swallowed blood from nose bleed or cracked nipple<br>▪ blood in stool after exclusion of infective or acute surgical causes, e.g., intussusception<br>▪ chronic diarrhea after no response to cow's milk protein exclusion<br>▪ high state or risk of atopy if no response to cow's milk protein exclusion<br>• gastrointestinal polyps<br>• gastrostomy tube patients<br>• Helicobacter pylori infections not responsive to standard treatment of Helicobacter pylori<br>• intestinal failure and long-term total parenteral nutrition<br>• lactose intolerance<br>• inflammatory bowel disease<br>• irritable bowel syndrome<br>• metabolic liver disease<br>• oesophagitis<br>• pancreatitis<br>• peptic ulcer disease<br>• portal hypertension<br>• post-liver transplantation<br>• protein-losing enteropathy<br>• short bowel syndrome<br>• viral hepatitis<br>• Wilson's disease |

## 3.10 General Pediatrics

| Age Group | Exclusions |
|---|---|
| • < 18 years old<br>• < 5 years old for suspected mental health issues | • 5 – 18 year olds for suspected mental health issues; refer to Sidra Medicine's Child and Adolescent Mental Health per their criteria |

| Symptoms | Known Diagnoses |
|---|---|
| • chronic abdominal pain for >3 weeks<br>• chronic constipation for >3 months, and not responding to treatment<br>• chronic diarrhea for >3 weeks<br>• chronic lymphadenopathy for >1 month, due to a suspected non-tuberculosis cause, and requiring workup<br>• enuresis failing initial management<br>• failure to thrive, with weight less than 2nd percentile (approximately equivalent to a Z-score of -2), for gestation-corrected age and sex when plotted on an appropriate growth chart, and who have decreased velocity of weight gain that is disproportionate to growth in length<br>• febrile seizures<br>• first febrile urinary tract infection in children <2 years of age<br>• obesity due to a non-endocrine cause, and failing initial management<br>• recurrent febrile urinary tract infections for >2 infections<br>• recurrent vomiting not associated with gastroenterological causes (e.g., gastritis, cyclic vomiting, gastroesophageal reflux disease)<br>• short stature due to a non-endocrine cause, and requiring workup<br>• suspected mental health presentations for children <5 years old. Refer older children to Sidra Medicine's Child and Adolescent Mental Health per their criteria<br>• uncomplicated headaches, excluding severe recurrent ones (likely migraines that failed to respond to first line headache treatment strategies) | • bronchial asthma<br>• iron deficiency anemia failing initial treatment<br>• gastroesophageal reflux disease failing initial management |

## 3.11 General and Thoracic Surgery

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • complex urologic anomalies<br>• circumcision without clearly defined co-morbidities<br>• constipation as sole diagnosis |

**Symptoms and Known Diagnoses**

Overall
- children requiring surgery (open or laparoscopic) for thoracic (excluding cardiac) or abdominal and pelvic lesions
- common head and neck lesions, solid tumors of chest or abdomen

Abdominal/Gastrointestinal
- esophageal surgery (e.g., gastro esophageal reflux disease, achalasia, duplication cysts, strictures)
- stomach, small bowel, colon surgery (e.g., atresia, stenosis, masses)
- solid organ tumors or any masses (e.g., Wilms' tumor, neuroblastoma, adrenal masses, sacrococcygeal teratoma, mesenteric cysts, ovarian cysts)
- complications of inflammatory bowel disease, anorectal malformations, Hirschsprung's disease, bariatric surgery
- surgery for the liver, gallbladder, spleen and pancreas
- abdominal wall defects or masses (e.g., urachal remnant, omphalomesenteric duct/cyst)
- hernia and hydoceale repairs (e.g., inguinal, umbilical, epigastric or post-operative)
- bariatric surgery in adolescents

Head and Neck
- endocrine surgery (e.g., thyroidectomy, parathyroidectomy)
- congenital malformations (e.g., branchial cleft cyst, thyroglossal duct cyst, cystic hygroma, lymphangioma, dermoid)

Thoracic/Vascular
- bronchoscopy
- pulmonary surgery for tumor, congenital malformation, infection, biopsy
- chest wall deformity (e.g., pectus excavatum, carinatum)
- mediastinal cysts, masses, teratomas or tumors of any kind
- diaphragmatic procedures (e.g., plication, repair)
- vascular procedures (e.g., vascular ring release, aortopexy, dialysis access, central venous access)

Skin/Soft Tissue/Muscoskeletal
- soft tissue mass of unknown etiology, dermoid cysts, inclusion cyst, lipoma, lymphadenopathy, after referral to and review by the *Infectious Diseases* service
- breast mass, axilla mass
- vascular malformations, lymphangioma

Fetal Consultation
- fetal pre-natal consultations for family counselling (e.g., diaphragmatic hernia, duodenal atresia)

Endoscopic Procedures
- minimally invasive technique (e.g., robotic surgery, thoracoscopically, laparoscopically)
- endoscopy of the esophagus, stomach, trachea or colon for intervention or dilation or removal foreign body

Genito-Urinary
- solid tumors (e.g., Wilms' tumor, adrenal masses)
- undescended testicle and circumcision in presence of multiple, clearly defined co-morbidities (patients over 1 year old unless medically indicated)
- gastro-intestinal component of cloaca

## 3.12 Hematology and Oncology

| Age Group | Exclusions |
|---|---|
| • <18 years old | • patients with generalized lymphadenopathy with any abnormalities of peripheral blood counts and who are asymptomatic should have urgent referral to the outpatient clinic following discussion with the attending hematologist/oncologist on call<br>• patients with generalized lymphadenopathy with any abnormalities of peripheral blood counts suggestive of leukemia or if they have concurrent systemic symptoms should be referred to the inpatient or emergency service for appropriate admission and acute care<br>• patients with radiologically diagnosed tumors should be referred to the inpatient or emergency service for appropriate admission and acute care<br>• masses or swellings: asymptomatic patients with masses suggestive of neoplasms should have urgent referral (not routine) to the outpatient clinic following discussion with the attending hematologist/ oncologist on call.<br>• patients with masses and symptoms associated with the mass should be referred to the inpatient or inpatient service for appropriate admission and acute care<br>• acute hemolytic anemia should be referred to the emergency service for appropriate acute care.<br>• other hematologic emergencies, e.g., venous thromboembolism, bleeding disorders, sickle cell disease crises should be referred to the inpatient or emergency service for appropriate admission and acute care<br>• benign hematologic abnormalities do not require referral to the hematology clinic, including thalassemia trait, sickle cell trait, minor blood parameter abnormalities (e.g. mild neutropenia, mild thrombocytopenia, mild anemia or abnormal coagulation testing without a history of bleeding/bruising), family history of thrombophilia |

| Symptoms | Known Diagnoses |
|---|---|
| • localized lymphadenopathy, with painless, enlarged lymph nodes that are persistent or increasing in size<br>• generalized lymphadenopathy without peripheral blood count abnormalities<br>• symptomatic or significant anemia<br>• symptomatic, persistent or significant thrombocytopenia and neutropenia<br>• easy bruising and bleeding | • malignancy and on active therapy initiated elsewhere for continuation of therapy (e.g., leukemia, lymphoma, solid tumor, brain tumor)<br>• malignancy and after completion of therapy for continued follow-up and surveillance (e.g., leukemia, lymphoma, solid tumor, brain tumor)<br>• stem cell transplant for diagnoses known to benefit from autologous or allogeneic stem cell transplantation (e.g., following: neuroblastoma, recurrent lymphomas, high-risk leukemia's, thalassemias, aplastic anemia, primary, severe immune deficiencies, metabolic disorder, e.g., glycogen storage diseases)<br>• iron deficiency, hemoglobinopathies (thalassemia and sickle cell disease), hereditary hemolytic disorders<br>• immune thrombocytopenia, congenital thrombocytopenia disorders<br>• autoimmune neutropenia, congenital neutropenic disorders<br>• hemophilia, von Willebrand's disease, fibrinogen disorders |

## 3.13 Infectious Diseases

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • routine immunizations, except for chronic patients who are followed at Sidra Medicine<br>• initial screening tuberculosis (< 2 years old for purified protein derivative test, 2 - 18 years for QuantiFERON test, chest x-ray for both age groups)<br>• for latent tuberculosis infection after exposure to tuberculosis cases, refer for initial screening to the HMC Communicable Disease Center as this monitors tuberculosis activity in the country and reports to the World Health Organization |

| Symptoms | Known Diagnoses |
|---|---|
| • chronic ear discharge that has lasted for more than 6 months<br>• fever after return from malaria and typhoid endemic areas<br>• fever of unknown origin > 38.3°C (101°F) at least once per day for ≥8 days, with no apparent diagnosis after initial outpatient or hospital evaluation<br>• lymphadenopathy when tuberculosis or other infectious diseases are suspected<br>• prolonged fever with weight loss that has lasted for more than 7 days<br>• consultation for tuberculosis patients admitted to Sidra Medicine<br>• follow-up consultation for tuberculosis patients discharged from Sidra Medicine<br>• follow-up of bone and joint infections after discharge from inpatient<br>• follow-up of cytomegalovirus and Epstein-Barr virus infections in immunocompromised patients<br>• follow up of newborn babies who were born to HIV positive mothers | • tuberculosis adenitis<br>• brucellosis<br>• Bacille Calmette–Guerin lymphadenitis<br>• cytomegalovirus<br>• Epstein-Barr virus<br>• human immunodeficiency viruses; suspected or confirmed<br>• latent tuberculosis infection<br>• lymphadenopathy to rule out infectious causes<br>• malaria<br>• osteomyelitis<br>• septic arthritis<br>• sexually transmitted diseases<br>• syphilis<br>• toxoplasmosis<br>• tuberculosis disease (any organ involvement); suspected or confirmed<br>• typhoid fever |

## 3.14 Neonatology High-Risk Infant Follow-Up

| Age Group | Exclusions |
|---|---|
| • corrected age of Term + 4 weeks following discharge from neonatal intensive care or post-natal wards | • infants with abnormal neuroimaging or neurodevelopmental assessments associated with other complex problems |

| Symptoms | Known Diagnoses |
|---|---|
| • high-risk for long-term neurodevelopmental delay (motor and/or cognitive)<br>• hearing problems<br>• visual problems<br>• growth failure | • less than 30 weeks' gestation at birth<br>• less than 1.2 kilograms birthweight<br>• hypoxic ischemic encephalopathy (moderate to severe)<br>• intraventricular hemorrhage (> Grade 2 according to Papile)<br>• cystic periventricular leukomalacia<br>• cerebral infarction<br>• neonatal bacterial meningitis |

## 3.15 Neonatology Prenatal Consult

| Age Group | Exclusions |
|---|---|
| • pregnancy with viable fetus | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • viable pregnancies for expert information during course of pregnancy and after delivery, and coordination of postnatal care with other medical and surgical service lines | • smaller than expected fetus for gestational age status<br>• macrosomia (fetus larger than expected for its gestational age)<br>• multiple gestation status (more than one fetus in pregnancy)<br>• anatomic, physiologic, and/or genetic anomalies (e.g., congenital diaphragmatic hernia, congenital heart defects and arrhythmias, pulmonary and airway malformations, gastrointestinal malformations, renal dysgenesis, malformations, central nervous system malformations and peripheral neurologic diseases, inborn errors of metabolism)<br>• for such pregnancies, given the concern of fetal and neonatal complications, the opportunity for the mother and family to discuss the pregnancy and expected fetal-neonatal course is an essential information resource, particularly for informed medical decision making and appropriate allocation of birth and early treatment after birth |

## 3.16 Nephrology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • blood in urine (hematuria)<br>• change in urine color<br>• high blood pressure persistently (more than one encounter) higher than the 95th percentile for age, gender, and height; patients known to have hypertension secondary to cardiac abnormalities at the time of referral should be referred directly to cardiology<br>• kidney manifestation of systemic diseases<br>• protein in urine | • abnormal structure of kidney or urinary tract<br>• acute kidney injury<br>• chronic kidney disease<br>• cystic kidney<br>• dysplastic kidney<br>• ectopic/horseshoe kidney<br>• glomerulonephritis<br>• hypercalciuria<br>• hypertension<br>• kidney stones<br>• nephrocalcinosis<br>• nephrogenic diabetes insipidus<br>• proteinuria<br>• diabetes with renal involvement<br>• renal tubular acidosis<br>• single kidney<br>• spina bifida<br>• renal involvement in systemic lupus erythematosus/ henoch-schönlein<br>• vesicoureteral reflux<br>• serum electrolytes abnormalities |

## 3.17 Neurology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • autistic spectrum disorder<br>• attention deficit hyperactivity disorder<br>• febrile seizures to be directed to Sidra Medicine's General Pediatrics<br>• uncomplicated headaches to be directed to Sidra Medicine's General Pediatrics<br>• isolated speech delay<br>• known cerebral palsy for rehabilitation |
| **Symptoms** | **Known Diagnoses** |
| • unprovoked seizures<br>• severe disabling headaches (likely migraine that failed to respond to first line headache treatment strategies)<br>• post-concussion syndrome<br>• recurrent loss of consciousness<br>• movement disorders<br>• abnormal involuntary movements<br>• vertigo<br>• hypotonia | • complications of central nervous system infection<br>• developmental regression<br>• epilepsy<br>• microcephaly/ macrocephaly<br>• movement disorders<br>• neuro-cutaneous disorders<br>• neuro-genetic and neuro-metabolic disorders refractory epilepsy<br>• neuromuscular disorders<br>• neurocutaneous syndromes |

## 3.18 Neurosurgery

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • abnormal head shape<br>• enlarged head (macrocephaly)<br>• midline spinal dimple or pit<br>• scalp lumps | • any infants, children, or adolescents requiring operative treatment within the central nervous system, spinal cord, meninges, spine, pituitary gland, or peripheral nerves<br>• congenital brain and spinal cord malformations (including spina bifida and tethered spinal cord syndrome, cared for with a multidisciplinary medical surgical team)<br>• benign and malignant tumors of the central nervous system, spinal cord, meninges or spine<br>• disorders of the craniofacial skeleton (e.g., craniosynostosis and craniofacial disorders) will be cared for by our pediatric neurosurgeon as part of a craniofacial team<br>• hydrocephalus<br>• infants and children with infections of the central nervous system, including epidural abscess, subdural empyema, or brain abscess, are preferably cared for by a pediatric neurosurgeon in conjunction with specialists in pediatric infectious disease<br>• hhildren over 3 years old with spasticity from cerebral palsy, who may be candidates for neurosurgical interventions (baclofen pump therapy or selective dorsal rhizotomy) |

## 3.19 Ophthalmology and Orthoptics

| Age Group | Exclusions |
|---|---|
| • < 14 years old for listed symptoms and known diagnoses<br>• < 18 years old for follow-up of previously diagnosed congenital anomalies<br>• > 18 years old for ongoing care of strabismus | • children > 7 years old with blurred vision, unable to see board, need glasses checks, need routine screening (refer to community optometry)<br>• itchy eyes, small eyelid cysts, pink eye, or other common primary care eye problems (refer to pediatrician) |

| Symptoms | Known Diagnoses |
|---|---|
| Pediatric ophthalmologists care for disease of the eye, and the associated structures. This includes medical and surgical aspects of the child's care.<br><br>• sudden loss of vision<br>• double vision<br>• chronic red eye or eye pain<br>• infections involving the eye ocular or periocular inflammation not responding to initial topical and/ or systemic antibiotic therapy or not clearing within 3 weeks<br>• suspected abuse and possibility of eye injury<br>• suspected cataracts, glaucoma, or blindness<br>• suspected herpes simplex or zoster<br>• Suspected need for eye surgery<br>• risk factors for strabismus or amblyopia (e.g., family history of amblyopia or orbital or eyelid hemangioma) | • care of congenital or genetic ocular anomalies or infections (e.g., aniridia, toxoplasmosis)<br>• cataracts, glaucoma, or blindness<br>• congenital nystagmus<br>• early-onset nystagmus<br>• strabismus or amblyopia (lazy eye)<br>• systemic syndromes, metabolic disorders, or chromosomal abnormalities with possible ocular involvement (e.g., juvenile idiopathic arthritis, galactosemia, diabetes mellitus, Marfan syndrome, down syndrome) |

## 3.20 Optometry

| Age Group | Exclusions |
|---|---|
| • < 8 years old for routine refraction and glasses evaluation<br>• 8 – 15 years old for complex refraction (e.g., nonverbal children, low vision, irregular astigmatism related to pathology, keratoconus or trauma, developmentally delayed in whom there is reason to suspect eye disease)<br>• < 18 years old for complex contact lens fittings<br>• newborns – 17 years old for low vision amongst visually impaired children and adolescents | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • poor vision or delayed attainment of vision related developmental milestones<br>• severe refractive errors or a strong family history of severe refractive errors<br>• difficult refraction for special needs children (e.g., autism, developmentally delayed, down syndrome, attention-deficit hyperactivity disorder<br>• low vision, legal blindness, or in need of low vision aids (best corrected visual acuity 20/200 or better)<br>• medically necessary contact lens (rigid gas permeable, scleral, hybrid, soft, prosthetic) | • children with keratoconus, post keratoplasty or other corneal scarring secondary to trauma or pathology who do not achieve good acuity with spectacles and require rigid gas permeable /hard lenses<br>• children with corneal opacities, aniridia, microcornea, photophobia secondary to iris trauma who require prosthetic lenses<br>• children who have had cataract surgery in need of aphakic contact lens fitting<br>• children who have anisometropia and in need of contact lenses due to aniseikonia<br>• low vision caused by albinism, retinal dystrophies (e.g., rod-cone dystrophy, retinitis pigmentosa), Retinopathy of prematurity, diabetic retinopathy, genetic disease or glaucoma |

## 3.21 Orthopedics

| Age Group | Exclusions |
|---|---|
| • < 18 years old for listed symptoms and known diagnoses | • infants, children, and adolescents with suspected malignant bone and soft tissue tumours (refer to an HMC orthopedic oncology surgeon)<br>• disorders pertaining to the hand (refer to Sidra Medicine's Plastic and Cranofacial service)<br>• rheumatological conditions (refer to a pediatric or adult rheumatologist, e.g., juvenile arthritis)<br>• osteomalacia or other metabolic conditions without skeletal deformity (e.g., genu valgum) refer to an endocrinologist<br>• neuromuscular disorders (e.g., cerebral palsy, spina bifida, muscular dystrophies, etc.) without upper or lower limb deformities, hip dislocation, and/or spinal deformity, refer to pediatric rehabilitation medicine or pediatric neurology as appropriate |

| Symptoms | Known Diagnoses |
|---|---|
| Pediatric orthopedic surgeons treat infants, children, an adolescents requiring surgical consultation and/or treatmer for conditions involving the musculoskeletal system.<br><br>• infants with congenital or acquired deformities of the upper or lower limbs, e.g., clubfoot or congenital limb deficiencies (other than hand)<br>• infants, children, and adolescents with congenital or acquired hip disorders<br>• infants, children, and adolescents with sequelae of bone and joint infection<br>• infants, children, and adolescents with spinal deformity (e.g., scoliosis)<br>• infants, children, and adolescents with significant limb length discrepancy<br>• infants, children, and adolescents with deformity or gait abnormality secondary to neuromuscular conditions (e.g., cerebral palsy, muscular dystrophies)<br>• infants, children, and adolescents with fractures and dislocations (other than hand)<br>• infants, children, and adolescents with suspected benign bone tumors (other than hand)<br>• infants, children, and adolescents with osteomalacia or other metabolic conditions with skeletal deformity (e.g., genu valgum)<br>• sports-related injuries (other than hand) | • fractures<br>• dislocations<br>• sequelae of bone and joint infection<br>• perthes disease of the hip<br>• sequelae of slipped capital femoral epiphysis<br>• scoliosis and kyphosis<br>• cerebral palsy (with upper or lower limb deformities, hip dislocation, and/or spinal deformity)<br>• spina bifida (with upper or lower limb deformities, hip dislocation, and/or spinal deformity)<br>• muscular dystrophies and other neuromuscular disorders (with upper or lower limb deformities, hip dislocation, and/or spinal deformity)<br>• skeletal dysplasias (with upper or lower limb deformities, hip dislocation, and/or spinal deformity)<br>• clubfoot and other foot deformities<br>• developmental hip dysplasia<br>• genu varum/valgum<br>• toe walking<br>• pediatric back pain<br>• overuse syndromes<br>• femoroacetabular impingement |

## 3.22 Otolaryngology – Head and Neck Surgery (Ear, Nose and Throat)

| Age Group | Exclusions |
|---|---|
| • < 3 years who may require a general anesthesia<br>• < 18 years with below listed conditions<br>• < 18 years with complex medical needs and/or fall within final bullet below (of the diagnosis criteria) | • children with snoring, otitis media ('ear infections', hearing loss), or chronic tonsillitis to a primary care physician or community pediatrician to refer to secondary services, or to HMC's Ear, Nose and Throat Department |

**Symptoms**

Specialty Background

Pediatric otolaryngology is a surgical discipline devoted to surgical therapy of the ear, nose and throat.

Major Diagnostic Categories Treated

- congenital malformations of head and neck structures, including: ear (e.g., prominent ear deformity, microtia or ear atresia), nasal passages, oral cavity, laryngo-tracheal airway, and neck (e.g., branchial cysts/fistulae, neck lumps, thyroglossal cysts, cystic hygroma's)
- neoplasms or vascular malformations of head and neck structures, including laryngo-tracheal airway
- infants and children requiring operative airway endoscopy for the evaluation of stridor
- infants and children with sensory impairments, including conductive or sensorineural hearing loss, vertiginous disorders, voice disorders, facial nerve paralysis, oro-motor dysfunction as evidenced by speech, swallowing, or drooling problems
- infants and children with acquired disorders involving the ear (e.g., cholesteatoma), the pharynx (e.g., obstructive sleep apnea), laryngo-tracheal airway (e.g., post-intubation laryngo-tracheal stenosis), aero-digestive tract (e.g., foreign body aspirations), facial skeleton (e.g., maxillofacial trauma)
- infants and children with complicated infections that may require surgery involving the ear (e.g., acute mastoiditis), the nose and para-nasal sinuses (e.g., acute or chronic rhino- sinusitis), the pharynx (e.g., recurrent adeno-tonsillitis, retropharyngeal abscess), the airway (e.g., epiglottitis), and the neck (e.g., parapharyngeal abscess)
- infants and children with medical conditions that increase operative risk (e.g., congenital heart disease, chronic lung disease, and other syndromes) who must undergo a common ear, nose and throat procedure (e.g., adeno-tonsillectomy)

## 3.23 Plastic and Craniofacial Surgery

| Age Group | Exclusions |
|---|---|
| • < 18 years old<br>• or any age for follow-up and/or ongoing care of any previously diagnosed condition listed below | • N/A |

**Symptoms and Known Diagnoses**

Specialty Background

- Plastic and Cranofacial Surgery is a specialty focusing on the reconstructive surgical treatment of congenital or acquired deformities.
- This specialty plays a primary role in many conditions (e.g., cleft lip and cleft palate, craniosynostosis, facial trauma, ear deformity, hand anomalies, gynecomastia, plagiocephaly).
- Supportive role in managing complex reconstructive problems (e.g., myelomeningocele, pilonidal disease, facial palsy, lower extremity trauma).

Major Diagnostic Categories Treated

- cleft lip
- congenital ear deformities (e.g., protruding, constricted, hypoplastic, microtia, anotia)
- skull deformities: plagiocephaly, craniosynostosis
- craniofacial syndromes (e.g., pierre robin, hemifacial microsomia; goldenhar velocardiofacial/22q11 deletion, fibrous dysplasia, neurofibromatosis, apert, crouzon, pfeiffer, carpenter, saethre chotzen, treacher collins, nager, stickler, craniofrontal nasal dysplasia, binder)
- syndactyly and polydactyly of the hand and foot
- other hand anomalies or post-traumatic hand deformities/dysfunction
- vascular and pigmented skin lesions (hemangioma, vascular malformation, lymphangioma, and giant melanocytic birthmarks)
- facial palsy
- benign skin tumors (e.g., keloid and hypertrophic scars, burn scar contractures, skin and skin adnexal cysts, dermoid cysts, nevus sebaceous, lipomas, myomas, fibromas)
- body surface contour deformity
- breast deformity (e.g., poland syndrome, gynecomastia)
- acute facial trauma (facial fractures, lacerations, nerve injuries)
- acute hand trauma (hand fractures, tendon/nerve/vascular injuries)
- malignant tumors (e.g., melanoma, spitz nevus, dermatofibrosarcoma protuberans)
- myelomeningocele
- pilonidal disease

## 3.24 Pulmonology

| Age Group | Exclusions |
|---|---|
| • <18 years old, for both acute conditions and chronic follow-up | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| • apnea, for infant <1 year old and symptomatic<br>• apnea >1 year of age and symptomatic<br>• chronic cough with recurrent pneumonia (≥ 2 in a year); persistent wet cough in setting of: oto-sinus disease, persistent chest X-ray changes, impaired exercise capacity, failure to thrive, recurrent hospital admissions (> 2 in a year), underlying etiology not identified by initial investigation<br>• cyanotic spells/hypoxia when non-pulmonary causes excluded<br>• hemoptysis<br>• noisy breathing (snoring, stridor)<br>• persistent tachypnea<br>• persistent cough and/or wheeze when follows hospitalization, especially in intensive care unit, emergency department visits, complicating conditions (e.g., broncho pulmonary dysplasia, prematurity, failure to thrive, pneumonia), frequent need for oral steroids, no response to standard treatment<br>• snoring with observed apnea, excessive daytime somnolence<br>• wheezing below 1 year old when ≥ 3 episodes in a year, history of prolonged hospital admission (> 1 week), failure to thrive, persistent wheezing even when well (> 6 weeks)<br>• pulmonary evaluation for patients with systemic diseases (sickle cell disease, connective tissue disorders, obesity, etc.) | • bronchiectasis<br>• bronchopulmonary dysplasia<br>• children with home vents or noninvasive ventilation (continuous positive airway pressure, bi-level positive airway pressure)<br>• chronic respiratory insufficiency<br>• congenital airway or parenchymal lung anomalies<br>• cystic fibrosis<br>• interstitial lung disease<br>• primary ciliary dyskinesia<br>• pulmonary hypertension – non-cardiac<br>• recurrent pneumonia episodes (≥ 2 in a year, and ongoing after initial investigation)<br>• neuro-muscular weakness<br>• difficult to control asthma<br>• lung transplant |

## 3.25 Rehabilitation Medicine

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • learning disabilities without physical disability<br>• autism without physical disability<br>• mental health conditions<br>• intellectual disability without physical disability |

| Symptoms | Known Diagnoses |
|---|---|
| • physical disabilities<br>• gross motor delay<br>• delay in acquisition of motor milestones<br>• toe walking<br>• spasticity (including botulinum toxin and intrathecal medication)<br>• paralysis<br>• movement disorder<br>• any concerning gait deviation<br>• extreme weakness that interferes with movement | • cerebral palsy (comprehensive management – non-operative)<br>• spina bifida/ meningomyelocele (comprehensive management – non-operative)<br>• muscular dystrophy<br>• spinal cord injury<br>• movement disorder after diagnosis who need rehabilitation<br>• acquired brain injury (traumatic or non-traumatic like brain tumor) after diagnosis who need rehabilitation<br>• amputation<br>• brachial plexus injury<br>• burns causing physical disability<br>• genetic disorders causing physical disability |

## 3.26 Rheumatology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • Neonates 1) whose mother is diagnosed with systemic lupus erythematosus, or 2) who has abnormal antibodies (eg. anti Ro antibodies, anti La antibodies) except if neonate has pathologic manifestations of lupus |

| Symptoms | Known Diagnoses |
|---|---|
| • unexplained prolonged symptoms not related to infections or medications, including:<br>▪ prolonged persistent fever (> 38°C) for more than 6 weeks with arthritis<br>▪ recurrent unexplained fever with no focus for infection for more than 3 months<br>▪ arthritis (joint pain and swelling) for more than 6 weeks<br>• symptoms suggestive of juvenile dermatomyositis, e.g., muscle ache and weakness, high creatine kinase, alanine transaminase, aspartate aminotransferase, characteristic rash, lactic dehydrogenase, or myositis by magnetic resonance imaging for more than 6 weeks not related to infection<br>• symptoms suggestive for systemic lupus erythematosus, e.g., hair falling out, oral ulcers, arthritis, malar rash, skin rash or abnormal blood work, e.g., cytopenia, low complement component 3, complement component 4 and positive autoantibodies.<br>• symptoms suggestive of Behcet's disease, e.g., recurrent oral and genital ulcers, rash and arthritis<br>• symptoms suggestive of chronic recurrent multifocal osteomyelitis (bone pain and non-infectious bone lesions by magnetic resonance imaging)<br>• symptoms suggestive for familial Mediterranean fever, e.g., recurrent fever, abdominal pain and rash with or without family history of familial Mediterranean fever<br>• symptoms suggestive for Sjogren's syndrome, e.g., recurrent parotitis, dry eyes, and dry mouth<br>• symptoms suggestive for vasculitis, e.g., skin rash, arthritis, weight loss and fever with positive autoantibodies | • autoimmune disorders<br>• Behcet disease<br>• chronic recurrent multifocal osteomyelitis<br>• inflammatory bowel disease-related arthritis<br>• juvenile dermatomyositis<br>• juvenile idiopathic arthritis<br>• mixed connective tissue disease<br>• neonatal lupus only with pathological manifestations, e.g., heart block, rash, transaminitis, hematologic and neurological abnormalities. Please see exclusions above.<br>• periodic fever syndrome, familial Mediterranean fever, Hyperimmunoglobulinemia D<br>• sarcoidosis<br>• scleroderma<br>• Sjogren syndrome<br>• system lupus erythematosus<br>• systemic sclerosis<br>• polyarteritis nodosa<br>• Raynaud phenomena<br>• uveitis<br>• vasculitis<br>• morphea<br>• other auto inflammatory diseases |

## 3.27 Sidra Child Advocacy Program (S-CAP)

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • N/A |

| Symptoms | Known Diagnoses |
|---|---|
| Specialty Background<br>• A 24-hour phone consultation is available if needed, on 4003 7227, a dedicated line due to the service's sensitive nature of cases.<br><br>Symptoms<br>• injury without available or suitable explanation, or inconsistent with child's developmental stage, e.g., bruises, bites, lacerations/abrasions/scars, thermal injuries, fractures, intracranial injury<br>• any child who has engaged in sexual activities that s/he cannot comprehend, is developmentally unprepared for and cannot give consent, or violate the law/social taboos of society (e.g., oral/genital/anal contact, fondling, rape, prostitution, exposure to or use in the production of pornography), with exhibited behavioral disturbances (e.g., depression, anger, and/or sexualized behavior), or physical signs/symptoms (e.g., genital, anal or perianal injury; anogenital bleeding or discharge, anogenital rash/warts, dysuria; sexually transmitted infections or pregnancy)<br>• conditions of failure to provide for a child's basic needs (e.g., inadequate nutrition, inappropriate medical care or treatment, poor school attendance, lack of supervision).<br>• impaired psychological growth and development, frequently related to negativity/hostility, rejection or developmentally inappropriate expectations of the child | • emotional abuse<br>• neglect<br>• physical abuse<br>• sexual abuse |

## 3.28 Urology

| Age Group | Exclusions |
|---|---|
| • < 18 years old | • nocturnal enuresis requiring initial management through behavioral therapy and lifestyle modifications by the family physician<br>• non-complex circumcision and penile abnormalities |

| Symptoms | Known Diagnoses |
|---|---|
| • testicular pain<br>• refractory urinary incontinence<br>• vaginal abnormalities | • ambiguous (intersex) genitalia<br>• bladder exstrophy and epispadias<br>• complex circumcision with penile abnormalities<br>• cloacal and urogenital sinus anomalies<br>• duplications of the urinary tract<br>• high-grade hydronephrosis (including antenatally diagnosed)<br>• high-grade vesico-ureteral reflux<br>• hydroceles<br>• hypospadias malformations of the urinary tract<br>• megaureter<br>• neurogenic bladder (associated with spina bifida)<br>• penile curvature<br>• posterior urethral valves<br>• recurrent urinary tract infections after evaluation by a General Pediatrician<br>• renal and bladder tumors<br>• ureteroceles<br>• undescended testicles<br>• urinary stones |

## 3.29 Gynecology

| Age Group | Exclusions |
|---|---|
| • ≥14 years old females for primary referral | • proven cases of cancer |

**Symptoms and Known Diagnoses**

Contraception Guidance
- hormones (tablets, patches, nuvarings, injections. etc.)
- intrauterine contraceptive device
- implants
- tubal sterilization
- other options

Abnormal Uterine Bleeding
- postmenopausal bleeding
- premenopausal bleeding
- bleeding lasting longer than 7 days
- passing blood clots
- heavy or abnormal menstrual bleeding
- spotting or bleeding between periods or after menopause
- periods that are more frequent than every 21 days or are more than 35 days apart
- vaginal bleeding or discharge
- post-coital (after intercourse) bleeding (bleeding after intercourse)

Other Menstrual Disorders
- primary Amenorrhea
- secondary Amenorrhea
- dysmenorrhea

Uterine Pathologies
- fibroids
- polyps
- adenomyosis
- cervical ectropion
- uterine septum
- Mayer-Rokitansky-Küster-Hauser syndrome /vaginal aplasia
- other Mullerian anomalies (e.g., bicornuate uterus, duplicate system, vaginal septum, imperforate hymen)

Pap Smear and Cervical Pathologies
- pap smear screening
- cervical dysplasia; diagnostics and treatment
- colposcopy

Ovarian/Adnexal Pathologies
- ovarian cyst
- any adnexal mass (not proven cancer)
- hydro salpinx
- endometriosis
- pelvic pain
- dyspareunia
- pelvic inflammatory disease sexually transmitted infection

Menopause and Premenopausal Management

- hormonal replacement therapy.
- genitourinary syndrome of menopause (e.g., vulvovaginal atrophy)

Vulvovaginal Disorders

- atrophy
- lichen sclerosis
- dysplasia and genital warts
- vaginal discharge/vaginitis
- any other disorders or lesions affecting the vulva and vagina

Pelvic Floor Disorders

- uterovaginal prolapse (e.g., cystocele)
- urinary incontinence
- urinary urgency
- polycystic ovarian syndrome

Infertility and Endocrine

- initial evaluation and management of female factor infertility
- evaluation and low complexity treatments of female fertility related endocrine disorders

Early Pregnancy Complications

- pregnancy of unknown location (e.g., suspected ectopic)
- miscarriages
- recurrent pregnancy loss evaluation and management (3 or more)

Gynecologic Surgeries for Benign Conditions

- open/abdominal
- endoscopies (e.g., hysteroscopy, laparoscopy, robotic assisted)
- vaginal surgeries
- office hysteroscopy

## 3.30 Maternal Fetal Medicine

| Age Group | Exclusions |
|---|---|
| • N/A | • N/A |

**Symptoms and Known Diagnoses**

Refer to Obstetrical Diagnostic Ultrasound – Screening

- nuchal translucency screening (11 - 14 weeks)
- first trimester basic and advanced fetal anatomy survey
- first trimester chronicity determination for multiple pregnancy
- determination of gestational age by ultrasound
- growth scan
- fetal size < or > than gestational age
- placental location
- gestational diabetes
- pregnancy diagnosis
- fetal anatomy scans (18 - 22 weeks gestation)
- second opinion ultrasound

Refer to Fetal Medicine Ultrasound – High risk

- detected or suspected fetal congenital anomaly
- fetal echocardiography
- intra uterine growth restriction (early and late onset)
- fetal cardiac arrhythmias
- rhesus and other blood group incompatibilities
- fetal hydrops
- twin pregnancies
- twin-to-twin transfusion syndrome or discordant growth
- triplet and higher order multiple pregnancy
- advanced maternal age > 39 years old
- abnormal nuchal translucency -screening
- detected or suspected fetal infection
- exposure to teratogenic medication or substances
- history of stillbirth/ intra uterine fetal death/ pre-term delivery
- family history of congenital anomalies/ genetic diseases
- invasive diagnostic test (amniocentesis, chorionic villus sampling etc.)
- amniotic fluid disorders (polyhydramnios /oligohydramnios /anhydramnios)
- detected or suspected morbidly adherent placenta

## 3.31 Obstetrics

| Age Group | Exclusions |
|---|---|
| • N/A | • diagnosed maternal cardiac disease<br>• maternal coagulation or hematologic disorders<br>• women with organ transplant or malignancies<br>• morbid obesity with body mass index >45 at booking<br>• chronic maternal kidney disease affecting function<br>• maternal neurologic disorders |

**Symptoms and Known Diagnoses**

Routine Antenatal Care
- healthy women and healthy fetus at any gestational age

High-risk Antenatal Care (gestational age not specified)
- all fetal conditions
- previous adverse pregnancy outcome/still birth/neonatal death
- previous preterm delivery
- multiple gestations

Referral due to Acute Condition
- labor onset
- spontaneous membrane rupture
- pregnancy of greater than 41 weeks gestation
- blood pressure >140/90
- bleeding from the genital tract at any stage pregnancy
- hyperemesis gravid arum
- decreased fetal movements
- suspected fetal demise

Pre-pregnancy Counselling

## 3.32 Perinatal Mental Health

| Age Group | Exclusions |
|---|---|
| • N/A (women who are planning to become pregnant, are pregnant, or in the first year after delivery) | • women requiring emergency psychiatric management<br>• women whose baby is older than 12 months |

| Symptoms | Known Diagnoses |
|---|---|
| • persistent sadness<br>• self-harming behavior<br>• fatigue<br>• loss of interest and enjoyment<br>• anxiety, distress, feeling stressed or irritable<br>• uncontrollable worries<br>• panic or obsessive thoughts<br>• flashbacks/ nightmares about frightening event<br>• confusion<br>• delusions<br>• hallucinations<br>• paranoia<br>• significant impairment of a woman's ability to function<br>• difficulties coping<br><br>Others<br>• requiring medication advice<br>• family relationship issues including adjustment to parenting | • have comorbid mental health difficulties<br>• have clinically significant distress associated with their obstetric presentations.<br>• depressive disorders including antepartum and postpartum depression.<br>• anxiety disorders including generalized anxiety disorder, perinatal obsessive-compulsive disorder and phobias impacting on obstetric care: acute and chronic post- traumatic stress disorder.<br>• adjustment disorder; complicated grief reactions following perinatal loss.<br>• attachment and bonding issues.<br>• preconception assessment and counselling for women with severe mental illness (bipolar affective disorder, schizophrenia and history of postpartum psychosis |

## 3.33 Reproductive Medicine

| Age Group | Exclusions |
|---|---|
| • all married couples seeking fertility assistance | • N/A |

**Symptoms and Known Diagnoses**

Infertility as defined as being a condition of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.

**Services**

Initial Evaluation and Management of Primary and Secondary Infertility

- semen analysis
- hormone profile of the female for fertility evaluation
- evaluation of tubal patency by hysterosalpingo-contrast sonography
- evaluation of uterine cavity by 3-D scanning with/without saline infusion sonography
- ovulation induction and follicle tracking

Evaluation and Management of Low-Complexity Treatments for Female Infertility-Related Endocrine Disorders, including Polycystic Ovarian Syndrome

Evaluation and Management of Infertile Couples Needing Advanced Fertility Assistance, Including:

- intra-uterine insemination
- in-vitro-fertilization with or without intra-cytoplasmic sperm injection
- egg/ embryo freezing
- pre-implantation genetic testing

# COMBINED SERVICES

## 3.34 Diagnostic Imaging/Radiology

| Age Group | Exclusions |
|---|---|
| • < 18 years old<br>• > 18 years old for congenital heart disease<br>• > 18 years old for fetal magnetic resonance imaging<br>• all ages for positron emission tomography/computed tomography<br>• all ages for nuclear medicine | • adult female imaging other than fetal magnetic resonance imaging<br>• gynecological ultrasonography<br>• non-pediatric ultrasonography<br>• obstetric ultrasonography<br>• occupational health imaging<br>• postnatal more than 12 months<br>• > 18 years old for congenital disease and genetics other than heart |

**Scope**

Services
- bone densitometry
- computed tomography
- fluoroscopy
- EOS 3D X-Ray
- positron emission tomography/computed tomography
- magnetic resonance imaging
- fetal magnetic resonance imaging
- radiography
- interventional radiology
- pediatric ultrasonography
- pediatric vascular anomalies clinic
- nuclear medicine

Future Services
- cone beam computed tomography
- nuclear medicine therapies for pediatric and adult patients: thyroid benign and malignant as well as other oncology therapies palliative or curative

Related Services
- anesthesiology
- pre-admissions testing clinic
- post-anesthesia care unit

Image Viewing and Sharing
- For referring physicians with access to the Sidra Medicine Cerner, all reports and images are available on Cerner.
- For referring physicians with access to the Health Information Exchange platform, all reports and images are available on the Health Interface Exchange. Currently, this applies to physicians from HMC and Primary Health Care Corporation. An initiative is in progress to expand this to image exchange.
- For referring physicians without access to Sidra Medicine Cerner, or the Health Interface Exchange, all reports and images are available into the referring physicians' contact details, and for collection by the patient following signature of the Release of Information form by the parent or guardian.

# 4. ACRONYMS

| | |
|---|---|
| HMC | Hamad Medical Corporation |
| S-CAP | Sidra Child Advocacy Program |

# 5. REFERENCES


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