American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

IMMIGRANT HEALTH TOOLKIT:
Section 2

Medical Screening and Treatment Recommendations for Newly Arrived Immigrant Children

The following section provides general medical screening recommendations for diverse immigrant children including unaccompanied minors, undocumented immigrants, asylees, refugees, and others.

A comprehensive medical evaluation should be available to all immigrant children, either within the medical home or coupled with referral to a medical home. Many aspects of this evaluation are routinely recommended per *Bright Futures*[13] guidelines for evaluation of all children but have nuances specific to immigrant children. The Centers for Disease Control and Prevention (CDC)[7] and the American Academy of Pediatrics (AAP) Red Book[1] offer resources with detailed discussions and/or checklists regarding screening of refugees and international adoptees. However, there has been little detailed guidance about post-arrival medical screening for other new immigrants; this generally has been extrapolated from published experience of screening of refugee and international adoptees.

The following checklist provides general medical screening recommendations for unaccompanied minor, undocumented immigrant, asylee, refugee, and other immigrant children from low resourced countries, especially if from low socioeconomic circumstances. These recommendations are consistent with current **CDC domestic refugee screening guidelines[7],** and this document will be updated periodically in effort to maintain consistency with existing guidelines. Although the AAP defines "immigrant children" as children who are foreign-born or children born in the United States who live with at least 1 parent who is foreign-born[2], these recommendations are specific to foreign-born immigrant children. For all patients without legal access to health insurance (such as unaccompanied minors and other undocumented children), providers must balance the medical needs of individual patients with the reality of patient/institutional costs for laboratory evaluations and prescribed **medications.**

Comprehensive history and physical examination	
History (Initial/Interval)	• **Immigration information** (e.g. country of origin, country of transit, refugee camp history, time residing in the United States) • **Birth history** (e.g. home birth, prenatal lab records) • **History of overseas blood transfusions, surgeries, female genital cutting, other traditional cutting, tattoos*** • **Nutritional history:** Foods available overseas/while in-transit, risks for micronutrient deficiencies • **Environmental exposure risks** (e.g. lead, second-hand smoke) • **Treatment prior to arrival** (e.g. pre-departure therapy for parasitic infections for refugees, overseas medications/home remedies, treatment while in ORR** custody for unaccompanied minors) • **Prior medical records** including labs and immunizations • **Menarche/LMP** for females; **pubertal onset** for males and females • **Family medical history** (e.g. maternal/paternal HIV, Hep B, C, TB) • **Social history** (e.g. family structure, status of parents if not in the home, legal guardian/primary care taker, other individuals living in the household, social support) • **Educational assessment** (e.g. last year of school completed, literacy level of patient/parents as applicable, potential learning difficulty and/or need for special education) • **Substance use**—prior and current*** • **Sexual history**—consensual/non-consensual • **History of trauma or abuse**
Developmental Assessment	• **Developmental screening tools+** with multiple available languages, such as the **ASQ[3], M-CHAT R[16], PEDS[19],** and/or **SWYC[25]**
Psychosocial Assessment	• **Signs/symptoms of PTSD, depression, anxiety** • Psychosocial screening tools+ such as the **PHQ-9[20], PSC[21],** or **RHS-15[23] (>14 years)**

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Comprehensive history and physical examination (continued)

Complete Physical Examination/ Measurements

- **Growth evaluation**[#]
- **Screening for female genital cutting (FGC) in at-risk populations:** routine external genital examination for all females[##]
- **Complete skin evaluation** (e.g. scarification, tattoos)
- **Pubertal development** for males/females
- **Dental** evaluation
- **Blood pressure** evaluation (> 3 years or risk factors)
- **Vision screen** (> 3 years)
- **Hearing screen** (Newborn, > 4 years)

* Possible risk factors for Hepatitis C[11]

** ORR—Office of Refugee Resettlement (http://www.acf.hhs.gov/programs/orr/programs/ucs)[17]

*** Tobacco, marijuana, alcohol, opium/heroin, betel nut[24], khat[28], other

[+] Validation of these tools for use in languages other than the English language varies by tool. Be sure that translated materials have been translated using internationally accepted translation methodology.

[#] Use WHO growth charts for infants 0-2 years.

[##] Children and adolescents who have not had a genital exam may find this experience less upsetting if deferred until a future encounter if follow-up is ensured.

Tiered[a] laboratory screening/parasite treatment options for most immigrant children originating from resource-limited settings or from low socioeconomic circumstances

1. **Tuberculosis testing: IGRA (TST** if <5 years old)[b,1,9]
2. **Cbc/Diff**
3. **Lead[d,6]:**—Children 6mo–16 years
4. **Hep B sAg[e,10,11]**
5. **Intestinal Parasite Evaluation** (NB: for refugees, may omit if received pre-departure treatment per CDC guidelines)
   - **Stool O & P** >24 hours apart x 3[f] **OR** presumptive treatment with **Albendazole**

   AND
   - **Strongyloides IgG OR presumptive treatment** with **Ivermectin[g]**
6. **HIV[i]**
7. **Syphilis EIA,** reflex RPR if positive[i,5]

a. Consider laboratory tiering in this order when patients or health care facilities have no access to discounted financial coverage programs

b. Interferon gamma release assay (IGRA), tuberculin skin test (TST). Screen regardless of history of BCG vaccine[1,9]. If IGRA unavailable, may use TST at any age. Repeat TB screening in 6 months. NB: Repeat if chronic disease, malnutrition once medical issues managed, given that anergy may give a false negative result.

c. Screen for anemia, eosinophilia (NB: absolute eosinophilia >400 warrants further work-up).

d. Repeat in 3-6 months in children 6 mo-6 years6.

e. If never screened for infection, screen even if documentation of complete hepatitis B vaccine series. Vertical and horizontal transmission possible[10,11].

f. Greater number increases sensitivity of test—most experts recommend 2 or 3 samples.

g. Consider presumptive treatment with ivermectin without serology if >15 kg, unless from Loa *loa* endemic countries[30].

h. If > 1 year old and no history of seizures or other signs/symptoms of neurocysticercosis*.

i. If prenatal lab results or recent maternal results available with negative screens and no risk for horizontal transmission, may omit.

Optional laboratory screening/presumptive treatment for children of specific ages, with specific exposures or risk factors

- **Urine B HCG**[j]
- **Urine GC/Chlamydia**[k]
- **Hep C Ab**[l]
- **Newborn screen,** per state guidelines[m]
- **TSH**[n]
- **Giardia stool antigen**
- **Hemoglobin electrophoresis**[p]
- **G6PD activity**[q]
- **Vitamin deficiency screening based on clinical presentationr,**[8]
- **Schistosoma IgG**[s] OR **Presumptive treatment** for schistosomiasis
- **Praziquantel**
- **Malaria thin and thick blood smears x 3**[t] OR **Malaria Rapid Diagnostic Test**[18] OR **Presumptive treatment for P *falciparum***[t]
- **Atovoquone-proguanil**[t] OR
- **Artemether-lumafantrine**[t]

j. All pubertal girls (prior to vaccines or medication administration)

k. All pubertal boys and girls or pre-pubertal boys and girls with history of sexual abuse

l. If history of HCV-positive mother, overseas surgery, transfusion, major dental work, IVDU, tattoos, sexual activity/abuse, FGC, other traditional cutting[11]

m. If no state specific guidelines, infants <6 month old

n. All children 6mo-3 years (screening for congenital hypothyroidism)

o. If clinical suspicion based upon failure to thrive or gastrointestinal symptoms given low sensitivity of stool O&P and eosinophilia

p. To evaluate for SS, SC, S trait[22], and thalassemias[29] in high-risk populations

q. For males from high-risk areas[4,14]

r. See CDC review of micronutrient deficiencies[8]

s. For immigrants from endemic regions of Africa[15] with no pre-departure treatment; May consider empiric treatment with praziquantel if > 4years and if no history of known neurocysticercosis*)

t. New immigrants from areas of sub-Saharan Africa (SSA) where *P falciparum* is endemic[12] or with signs or symptoms of infection. For immigrants from SSA where *P falciparum* is endemic[12], if not pre-treated per CDC guidelines prior to departure and history of living in area with high malaria risk[12] consider treatment with atovoquone-proguanil or artemether-lumafantrine (if > 5kg), given that sub-clinical malaria infection is common and blood testing lacks sensitivity, particularly for specific refugee populations from areas that have greater than 40% endemicity (dark red on the endemicity map[12]) for malaria infection. For infants and pregnant teens with symptoms consistent with malaria, CDC recommends blood PCR testing.

*Cysticercosis is a parasitic tissue infection caused by larval cysts of *Taenia solium,* also known as the pork tapeworm. These cysts can infect the brain (neurocysticercosis), which may present as seizures or neurologic deficits in children. It may also manifest as cysts in the muscles and other tissues. Presumptive treatment with praziquantel or albendazole in the setting of neurocysticercosis is contraindicated without concomitant anti-epileptic and steroid pre-treatment because these drugs may provoke significant brain inflammation and seizures. If child has history of seizures or neurologic deficits of unknown cause, do not treat with praziquantel or albendazole until the presence of neurocysticercosis has been eliminated through neuroimaging.

Treatments and referrals

- Multi-vitamin with iron[u]
- Fluoride varnish[v]
- Vaccines, with catch-up plan as needed
- Contraception for all sexually active males and females
- Confirmation of medical home/assignment of specific PCP
- Dental Referral
- WIC Referral (infants & children < 5 years, pregnant adolescents)
- Mental health referral as needed
- Care coordination, including orientation to US health care system
- Set up follow-up appointment

u. All children 6 months-59 months and children 5 years and older with clinical evidence of poor nutrition

v. All children up to 5 years of age

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