

Syrian Refugee Early Assessment Considerations for Primary Care Providers

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This document was developed in partnership with Public Health Ontario.

Overview

This document is intended to support the primary care provider in their early assessments and care of Syrian refugees of all ages.

Ontario has excellent primary care providers that play an essential role in supporting and providing transitional care for refugees. The Ministry of Health and Long-Term Care is grateful to all health care providers who will be caring for refugees in their practices.

This document contains information on the following:

- A. The [Immigration Medical Examination](#);
- B. [Considerations to support the early assessment and care of Syrian refugees](#) (Table 1): Much of the information in Table 1 is derived from a recently published article in the Canadian Medical Association Journal by Pottie et al.¹ with some modifications, particularly to be consistent with Ontario's vaccination recommendations²;
- C. [Blood tests to consider ordering at the first visit](#);
- D. [Infectious diseases to consider in symptomatic Syrian refugees](#) (Table 2): Much of the information in Table 2 is based on an assessment by the European Centre for Disease Prevention and Control (ECDC)³;
- E. [Health Insurance Coverage Information](#): Information to assist the primary care provider in billing for the care provided to Syrian refugees;
- F. [A list of additional resources](#).

A. Immigration Medical Examination (IME)

Overview of the IME

All Syrian refugees have had an Immigration Medical Examination (IME) completed before arriving in Canada and should have been given a copy of their IME documentation. The

provider can ask the patient for a copy of the IME, but the patient is not obligated to provide it.

The IME includes a focused history and physical examination and the following investigations:

- **A urinalysis** for all persons 5 years of age and over;
- **A chest X-ray** for all persons ≥ 11 years old and for some children (e.g. if indicated based on history or physical examination). Only the radiologist's report is provided to the refugee; the images are not provided;
- **A syphilis test** for all persons ≥ 15 years old and for some children;
- **An HIV test** for all persons ≥ 15 years old and for some children (e.g., born to infected mothers or received a blood transfusion);

Details of the assessment can be found on Immigration, Refugees and Citizenship Canada's [website](#).

Follow-up of IME findings

- **Tuberculosis:** Refugees with active TB are treated overseas before coming to Canada. Local public health officials will be notified of individuals who require follow-up due to concerns about previously treated TB or inactive pulmonary TB based on history or chest X-ray findings. Refugees referred for post-landing medical surveillance due to previously treated TB or inactive pulmonary TB will be required to report to their local public health unit within 30 days of arrival (or within 7 days if the referral is urgent).
- **Syphilis:** Refugees with syphilis are treated overseas and are not reported to public health.
- **HIV:** Local public health is notified of those with a positive HIV test.

B. Considerations to support the early assessment and care of Syrian refugees

Table 1: Considerations to support the early assessment and care of Syrian refugees

Vaccinations and Vaccine Preventable Diseases			
	Recommendation	Follow-up	Rationale
Vaccinations	If no immunization record, consider the person unimmunized and provide vaccination as per the Publicly Funded Immunization Schedules for Ontario-catch-up schedules ² , including the influenza vaccine as appropriate.	Schedule follow-up appointments at appropriate intervals to complete the catch-up schedule.	Childhood vaccinations rates in Syrian refugees were over 90% before the onset of the war in 2011, but have fallen to approximately 43 to 52%. ¹ In addition, some vaccines that are included in the publicly-funded scheduled in Ontario are different than those used in Syria.
Hepatitis B	Screen adults and children for hepatitis B infection and prior immunity by ordering: <ul style="list-style-type: none"> • HBsAg (surface antigen) • Anti-HBs (surface antibody) • Anti-HBc (core antibody) 	Although Pottie et al. ¹ recommend vaccinating all those who are susceptible, the Publicly Funded Immunization Schedules for Ontario ³ (see Page 5 of the schedule) outlines specific eligibility criteria for publicly-funded hepatitis B vaccination for susceptible individuals who are at high risk (e.g., family members and sexual contacts of acute cases or carriers, children < 7 years of age whose families have recently immigrated from high risk countries). As well, hepatitis B vaccine is routinely offered by public health units to grade 7 through 8 students at school.	Syria offers hepatitis B vaccination beginning at birth but coverage rates have been variable in recent years. ⁴ Rate of chronic hepatitis in Syria is estimated to be intermediate (2 % to 7%) ⁵ . Screening is recommended for refugees from countries where the rate of chronic hepatitis B is ≥2%. ^{1,5}

Vaccinations and Vaccine Preventable Diseases

	Recommendation	Follow-up	Rationale
		<p>Test for immunity (anti-HBs) 1 to 6 months post-vaccination for those at high risk for infection (e.g., household or sexual contacts of cases or carriers).⁶ If non-immune post-vaccination, test for HBsAg and if negative, re-vaccinate.</p> <p>Refer those found to be HBsAg positive to a hepatologist or infectious disease physician for further assessment. Ensure close contacts of the HBsAg positive person are screened for hepatitis B infection and immunity and receive the hepatitis B vaccine if not infected or immune.</p> <p>Publicly-funded hepatitis A vaccine is recommended for HBsAg positive individuals.</p>	

Vaccinations and Vaccine Preventable Diseases

	Recommendation	Follow-up	Rationale
Varicella	<p>Using two-doses of varicella-containing vaccines, vaccinate unvaccinated individuals born in or after 2000 (if they are 1 year of age or over).²</p> <p>If they do not have a clear history of previous varicella infection, screen for varicella immunity in individuals born before 2000 who are < 50 years of age⁷ by ordering:</p> <ul style="list-style-type: none"> • Varicella immunity serology. 	<p>Offer two doses of varicella-containing vaccine to those who are:</p> <ul style="list-style-type: none"> • Born before 2000 and are < 50 years of age without a clear history of previous varicella infection if they are found to be non-immune to varicella based on serology.⁷ <p>Varicella vaccines are not publicly-funded in this group unless then meet the high-risk eligibility criteria indicated on page 5 of the Publicly Funded Immunization Schedules for Ontario.²</p>	<p>Varicella vaccine is not part of the routine schedule in Syria.</p> <p>Most adolescents and adults from Syria are immune from natural infection.¹</p>

Other Communicable Diseases

	Recommendation	Follow-up	Rationale
Hepatitis C	<p>Screen for hepatitis C in adults by ordering:</p> <ul style="list-style-type: none"> • Anti-HCV (antibody to hepatitis C) 	<p>If anti-HCV positive, order HCV RNA</p> <p>Refer those found to be HCV RNA positive to a hepatologist or infectious disease physician for further assessment.</p> <p>Publicly-funded hepatitis A and hepatitis B vaccines are recommended for these individuals.</p>	<p>The rate of chronic hepatitis C in Syria is estimated to be 1%.</p> <p>Screening is generally recommended if the rate of chronic hepatitis C is ≥3%, but Pottie et al. indicate that screening should be considered in Syrian refugees due to uncertain prevalence and potential for recent exposures.¹</p>

Other Communicable Diseases

	Recommendation	Follow-up	Rationale
HIV <i>(screening NOT recommended)</i>	Routine screening NOT recommended.	Not applicable	Screening is done as part of the Immigration Medical Examination for those ≥15 years old and some children. The HIV prevalence in the Middle East is < 0.1%. ¹
Tuberculosis (TB) <i>(screening for latent TB NOT recommended)</i>	Routine screening for latent TB via TB skin test or interferon gamma release assay (IGRA) is NOT recommended. Other risk factors may warrant screening. ^{8, 9}	Assess for signs and symptoms of active TB and conduct diagnostic tests as appropriate (i.e., chest X-ray and three sputum samples). ¹⁰	Rates of all forms of active TB in Syria were 17/100,000 in 2014, with similar or lower rates in surrounding countries. ¹ Latent TB screening recommended if rates of all forms of active TB are ≥30/100,000. ^{1, 11}
Strongyloides	Screen for strongyloides by ordering: <ul style="list-style-type: none"> • serology for <i>Strongyloides stercoralis</i>. 	If positive, provide treatment as appropriate with ivermectin. ¹²	Prevalence of strongyloides uncertain in the Middle East but thought to be relatively low (< 5%). Pottie et al. indicate that screening should be considered as rates may be higher due to living conditions in refugee camps. ¹
Stools for ova and parasites <i>(screening NOT recommended)</i>	Screening of asymptomatic individuals NOT recommended. Routine assessment for those who are symptomatic or in children with failure to thrive.	Not applicable.	Not recommended by the Canadian Collaboration for Immigrant and Refugee Health as these infections generally clear on their own. ¹²

Non-communicable Diseases and Conditions

	Recommendation	Follow-up	Rationale
Chronic diseases	Screen for chronic diseases, such as diabetes, hypertension, cholesterol, colorectal cancer etc. as appropriate based on age and risk factors as per usual practice.	Follow-up as per usual care.	Chronic diseases may be unrecognized or unmanaged due to limited access to care. ^{13, 14, 15, 16}
Iron deficiency anemia	Complete blood count (CBC) recommended for children 1 to 4 years of age and women of child bearing age. Routine testing for other groups as clinically indicated.	Follow-up as required.	Iron deficiency is the most common cause of anemia and prevalence is higher in newcomers to Canada. Iron deficiency anemia can result in poor outcomes in pregnancy and impaired physical and cognitive development in young children. ¹²
Dental needs	Assess for urgent dental care needs such as pain, obvious dental caries and oral disease using a penlight and tongue depressor. Counsel regarding oral hygiene.	Treat dental pain with non-steroidal anti-inflammatory drugs. Provide urgent or routine referral to dentist or oral health specialist as indicated.	Dental needs may have been unmet due to limited access to care. ¹²

Non-communicable Diseases and Conditions

	Recommendation	Follow-up	Rationale
Glucose-6-phosphate dehydrogenase (G6PD) deficiency	<p>Screen for G6PD deficiency if individual has:</p> <ul style="list-style-type: none"> • history or signs of anemia or hemolysis; • family history of anemia or hemolysis; or • prior to taking a drug which trigger hemolysis in those with G6PD deficiency. See Canadian Paediatric Society: Caring for Kids New to Canada¹⁷ 	<p>In affected patients, avoid drugs that trigger hemolysis.</p> <p>Provide referral as appropriate.</p>	<p>Prevalence is generally higher in those of Middle Eastern decent ¹⁷ although the prevalence in Syrians is unknown.</p>
Mental health	<p>Routine screening for post-traumatic stress disorder (PTSD) not recommended.</p> <p>Watch for signs and symptoms of mental health concerns in adults and children, including PTSD and depression, and other chronic mental health conditions.</p> <p>The CAMH Refugee Mental Health Project has additional information and courses on refugee mental health.</p>	<p>If signs of PTSD, depression or other mental health concerns, treat or refer as appropriate.</p>	<p>The Canadian Collaboration for Immigrant and Refugee Health recommends against pushing for disclosure of traumatic events in well-functioning individuals as this may be harmful.^{1, 12}</p>

Non-communicable Diseases and Conditions			
	Recommendation	Follow-up	Rationale
Vision needs	Conduct an age-appropriate visual assessment.	If needed, refer individuals to optometrists or ophthalmologist for further evaluation.	Unrecognized visual problems such as uncorrected refractive error likely common due to limited access to care. 1 , 12
Specific Women's Health Issues			
	Recommendation	Follow-up	Rationale
Pregnancy	Consider pregnancy in women of reproductive age.	As per usual practice.	Based on usual care for women of reproductive age.
Contraception needs	Assess women of a reproductive age for contraceptive needs.	As per usual practice.	Based on usual care for women of reproductive age.
Cervical cancer and breast cancer screening	As appropriate for age. Lower priority for the first visit; may want to delay to later visits.	As per usual practice.	Based on usual care. 18 , 19

C. Blood tests to consider ordering at the first visit

A comprehensive list of blood tests is provided to minimize the need for additional venipuncture at subsequent visits.

- **Complete blood count (CBC):** for children 1 to 4 years of age and women of child bearing age
- **Hepatitis B:**
 - Hepatitis B surface antigen (HBsAg)
 - Antibody to hepatitis B surface antigen (anti-HBs)
 - Antibody to hepatitis B core antigen (anti-HBc)
- **Hepatitis C:** Antibody to hepatitis C (anti-HCV)
- **Varicella immunity serology:** for individuals born before 2000 who are < 50 years of age and don't give a clear history of previous varicella infection
- **Strongyloides serology**

- **Glucose 6 phosphate dehydrogenase (G6PD) deficiency:** for those with an individual or family history of anemia or hemolysis, or prior to taking medications that trigger hemolysis in those with G6PD deficiency
- **Screening tests for chronic conditions**, if indicated:
 - **Hemoglobin A1c**
 - **Lipid profile**

D. Infectious diseases to consider in symptomatic Syrian refugees

Table 2: Infectious Diseases to Consider in Symptomatic Syrian Refugees

In assessing a symptomatic Syrian refugee, these infectious diseases should be considered along with more common infections in Ontarians, some of which are included in the list below.

Symptoms	Disease	Comments
Fever	<ul style="list-style-type: none"> • Typhoid fever • Visceral leishmaniasis • Amebic abscess • Malaria • Dengue and other arboviruses 	Louse-borne relapsing fever has been diagnosed in several European countries in refugees from eastern/Horn of Africa but not from Syria.
Respiratory symptoms	<ul style="list-style-type: none"> • Influenza and other viral and bacterial respiratory pathogens • Pertussis • Tuberculosis 	MERS-CoV has not been identified in Syria, although a few cases have been identified from Jordan and Lebanon in the past.
Gastrointestinal symptoms	<ul style="list-style-type: none"> • Viral (norovirus, rotavirus) • Bacterial (<i>Salmonella</i>, <i>Shigella</i>, <i>Escherichia coli</i>, Typhoid fever etc.) • Parasites (amebiasis) • Helminthiasis (ascaris, whipworm, hookworm) • Cholera 	
Skin sores	<ul style="list-style-type: none"> • Cutaneous leishmaniasis • Scabies • Bed bugs • Cutaneous diphtheria 	<p>Cutaneous leishmaniasis is a concern in Syria and lesions may appear several years after arrival in Canada.</p> <p>Cutaneous diphtheria has been detected among refugees in Europe.</p>

Symptoms	Disease	Comments
Skin rashes	<ul style="list-style-type: none"> • Varicella • Measles • Rubella 	Louse-borne relapsing fever has been diagnosed in several European countries in refugees from eastern/Horn of Africa but not from Syria.
Meningitis or other neurologic conditions	<ul style="list-style-type: none"> • Streptococcus pneumonia • Invasive meningococcal disease • <i>Hemophilus influenza</i> type b • Dengue and other vector-borne disease • Polio • Rabies • Tetanus 	
Jaundice	<ul style="list-style-type: none"> • Hepatitis A • Hepatitis B • Hepatitis C • Hepatitis E 	<p>Hepatitis A is common in Syria.</p> <p>Hepatitis B carrier rates are intermediate in Syria (2 to 7%).</p> <p>Hepatitis C rates are low in Syria (~1%) although there is some uncertainty about this estimate.¹</p>

This table is based mainly on information from the European Centre for Disease Prevention and Control, November 19, 2015.³

Please see the [Public Health Ontario Laboratories Test Directory](#) for sample and test information for specific pathogens being considered for testing in a symptomatic Syrian refugee. If further questions arise, please contact the Public Health Ontario Laboratories Customer service line at 416-235-6556 or 1-877-604-4567.

E. Health Insurance Coverage Information

Health Insurance Coverage Overview

Syrian refugees who arrived in Canada on or after November 4, 2015 are eligible for immediate coverage under the Interim Federal Health Plan (IFHP) and will receive Type 1 benefits under the IFHP. Type 1 benefits include Basic Coverage, Supplemental Coverage (e.g. dental, eye care), and Prescription Drug Coverage.

Note: It takes at least two business days for the IFHP to be activated once issued to a refugee.

Syrian refugees residing in Ontario are also eligible for OHIP and are exempt from the three-month waiting period. Refugees can register for OHIP at a ServiceOntario Centre. The [Syrian Refugee Health Care Options Fact Sheet](#) informs Syrian refugees what documents they need to register for OHIP (this fact sheet is available in additional languages on the Ministry of Health and Long-Term Care's [website](#)). Once a refugee is successfully registered for OHIP, basic health care coverage under the IFHP will cease. However, the Supplemental and Prescription Drug Coverage will continue for up to one year.

More information on the Interim Federal Health Program (IFHP)

- Health providers must register with Medavie Blue Cross as an IFHP provider in order to bill the IFHP. To register, go to the Medavie Blue Cross [provider web portal](#).
- Please see the Provider section of [Medavie Blue Cross IFHP website](#) for more information on coverage and benefit grids.
- Refugees must present their IFHP certificate to receive services covered by the IFHP.
- To verify a patient's IFHP coverage, health providers can access a secure section of the Medavie Blue Cross [provider web portal](#) or call Medavie Blue Cross at 1-888-614-1880 (08:30 to 16:30 in each Canadian time zone).

More information on the Ontario Health Insurance Plan (OHIP)

- Syrian refugees residing in Ontario are eligible to register for OHIP (the [Syrian Refugee Health Care Options Fact Sheet](#) informs Syrian refugees what documents they need to register for OHIP).
- If OHIP-insured services are provided to a Syrian refugee prior to him / her registering for OHIP, these services will be eligible under OHIP and can be billed retroactively.
 - In those cases where a Syrian refugee has not yet obtained their Ontario health card, the provider can bill the IFHP or hold the claim until the patient can provide their OHIP number.
- As stated above, all refugees from Syria will be eligible for immediate coverage under the IFHP, and providers can bill this program until refugees are registered for coverage under OHIP.

F. Additional resources

The overview in this document supplements the material found in the following resources:

- [Evidence-Based Preventative Care Checklist for New Immigrants and Refugees](#) which provides a visit-by-visit guide for assessing and recording information on newcomers to Canada.
- [Caring for a newly arrived Syrian refugee](#) which provides an overview of the specific health recommendations for Syrian Refugees.

- [Evidence-based clinical guidelines for immigrants and refugees](#) which provides comprehensive, evidence-based guidelines on caring for newcomers to Canada (including mental health).
- [Canadian Pediatric Society](#) provides general information on immigrant and refugee health for children, including information on helping Canadian communities help Syrian refugees.
- [Infectious diseases of specific relevance to newly-arrived migrants](#) in the EU/EEA which provides an overview of infectious diseases in refugees in Europe from various parts of the world including Syria.
- [Medavie Blue Cross](#) provides a list of health care providers who are registered for the IFHP. This list can be used to identify providers who work with refugees.

For additional questions, please contact the Ministry of Health and Long-Term Care's Health Care Provider Hotline at 1-866-212-2272.

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