

EMR QUERIES

PRIORITY 1 & 2 VACCINE ROLL OUT

Generating lists of patients at high risk of COVID-19 who should be prioritized for vaccination – Manitoba Rules

Eligibility Criteria for Viral-Vector Vaccines as per “Manitoba COVID-19 Vaccine: Clinical Practice Guidelines for Immunizers and Health Care Providers”

In the context of limited COVID-19 vaccine supply, AstraZeneca/COVISHIELD vaccine doses are to be administered to:

- 50 to ≤ 64-year-olds in the general population
- 30 to ≤ 64-year-old First Nations people
- prioritized using health conditions that increase individual risk of severe outcomes from COVID-19

Eligibility criteria is subject to frequent change; check the website:

<https://www.gov.mb.ca/covid19/vaccine/eligibility-criteria.html>

Providers are expected to work through priority 1 conditions in their patient population before moving to priority 2 individuals; however, this does not replace clinical judgement concerning the practitioner’s assessment of the patient’s risk.

All individuals aged 18-64 who are already eligible for mRNA vaccines through the provincial criteria are also eligible to receive AstraZeneca/COVISHIELD instead of the mRNA vaccines. This includes staff working at pharmacies and physicians’ clinics that have received an allocation of AstraZeneca/COVISHIELD. Clinics and pharmacies are requested to use the end of day remaining doses of open vials that would otherwise need to be discarded for their staff.

The following is a set of instructions and advisory notes regarding how to identify vaccine-eligible patients using an EMR query tool. You may require support from your vendor if you do not know how to use your product's query tool.

Please keep in mind that any list generated based on EMR data may lack specific clinical judgement to prioritize within the list. **Clinical considerations based on information providers may know about their patients will be necessary to validate any list produced using data contained in your EMR.** The purpose of these instructions is to create patient lists that should be reviewed by Primary Care Providers and/or teams prior to inviting patients for COVID-19 Immunizations. The queries will not produce lists that have 100% sensitivity or specificity,

RULE 1: Patient Age between 50 to 64

RULE 2: Clinical vulnerability. Table 1 describes relevant diagnostic and medication codes that can be incorporated into the query for Priority Group 1. Table 2 describes relevant diagnostic and medication codes that can be used for Priority Group 2. Note - to be accurate, practice data quality should be known to be "fit for purpose". If uncertain, testing, manual review and validation to ensure appropriateness may be needed.

Suggestions for use of Table 1 and 2 (key considerations):

- Given possible large numbers of patients eligible and limited vaccine supply, it may be desirable to build the query iteratively and not capture the full list eligibility criteria on the first run. Clinical judgement specific to your practice is desirable to decide which criteria to start with. Make sure to document COVID-19 immunization as per instructions from Manitoba Health and within your EMR in the Immunization section so that exclusions can be created for later stages
- First Nations peoples are eligible starting at age 30. If your practice has a high number of First Nations individuals consider adjusting the age criteria accordingly or creating a separate list of 30-64 and reviewing for patients who you know are of First Nations people.
- Consider searching in relevant sections of the EMR such as previous billing and/or problem list (Cumulative Patient Profile, History of Problems) diagnoses.
- For ICD9 and ATC codes use "starts with" to capture all subsequent modifier codes
- The pregnancy criteria applies to all ages, so changing Rule 1 to above 35 should be done prior to checking for pregnant patients
- Prescribing or Medication components should be added to the query to capture those on medications related to the corresponding high-risk conditions. Medication rules should be added as an "OR" except in the case of malignancies where they should be included as an "AND".
- Laboratory/Examination results can be used to assess disease presence or severity but may not be available in all cases.
- For more information and tools regarding how to plan and execute COVID-19 Immunization in primary care settings, check out: <https://covidtoolkit.ca/>

TABLE 1 – Priority 1 Conditions

Condition	Associated ICD9 Codes	Associated Medications/ATC codes	Labs
Advanced Chronic Kidney Disease	5855, 5856		
Cirrhosis OR Portal Hypertension	5712, 5715, 5716, 4561, 4562, 4568, 5723		
**Heart Failure (class 3 or 4)	428		
Congenital Heart Anomaly	746		
**Severe COPD	496	R03	
Lung Diseases: Pulmonary Hypertension, Pulmonary Fibrosis, Interstitial Lung Diseases, Cystic Fibrosis	277, 416, 7484, 495		
**Cerebrovascular Disease	431,432, 433, 434, 438		
Malignant neoplasms currently undergoing active chemotherapy or immunosuppressive therapy	140–239 3383	AND L01 OR L04	
Severe Obesity			BMI >40
Immunosuppression Therapy		L01AA OR L04	
Down's Syndrome and other severe congenital disorders (chromosomal)	758		
Splenectomy/Asplenia	7590, 2826		
***Pregnant individuals with one of: aged ≥ 35 years, BMI ≥ 30, pre-existing diabetes, pre-existing hypertension, cardiac or pulmonary disease.	V22	250, 401, 420–429, 460–519	Age >35 years BMI>30

**Will require individual chart review to identify severity (ie. Heart Failure Class III/IV vs Class I/II or “severe COPD)

Not included in this table, but part of MB criteria:

- Individuals receiving home care ≥ 4 times/week OR receive 24/7 support from Community Living Disability Services.

TABLE 2 – Priority 2 Conditions

Condition	Associated ICD9 Codes	Associated Medications/ATC codes	Labs
**Heart Failure (class 1 or 2), CAD, Cardiomyopathies	410-414,425-429		
Chronic liver disease	571		
Chronic neurologic or neurodevelopmental conditions (cerebral palsy, Parkinson's Disease, MS, ALS, Dementia)	290, 294, 323, 330-337, 340-344	N04, N06D, L03AB07, L03AB08, L03AB13, L03AX13, L04AA23, L04AA24, N07XX09, L04AA31, L04AC01, L04AA34	
Chronic Pulmonary Disease and **severe uncontrolled asthma	496, 493	R03	
Chronic Kidney Disease	585		eGFR<60
HIV	042		CD4>200
Severe autoimmune disorders (SLE, Scleroderma, myocarditis, RA)	710, 713, 714	P01BA02	
Diabetes (1 or 2)- **poorly controlled and/or with complications	250	A10	
Active or latent tuberculosis	010-018		

**Will require individual chart review to identify severity

Not included in this table, but part of MB criteria:

- Individuals receiving homecare \leq 3 times/week OR any level of Community Living Disability Services supports (or as per family physician determination of equivalent levels of family support).
- Household contacts of individuals with Priority 1 chronic health conditions OR designated support person(s) for personal care home residents (in the authorized age category).