Adverse Events Following Immunization (AEFI) with COVID-19 Vaccines in Nova Scotia

December 16, 2020 to January 31, 2022

Summary of Adverse Events Following Immunization

- Between Dec 16, 2020 and Jan 31, 2022, the province has administered 2,140,305 doses of COVID-19 vaccine.
- There have been 698 Adverse Events Following Immunization (AEFI).
  - 579 (82.9%) were non-serious
  - 119 (17.1%) were serious.
- The rate of adverse event reports was highest among 30-49 year olds and lowest among 5-17 year olds, and higher among females than males
- The type and frequency of AEFIs reported in Nova Scotia are consistent with those being reported in the rest of Canada

Overall Summary of Adverse Events Following Immunization

Between December 16, 2020 and January 31, 2022 Nova Scotia has administered 2,140,305 doses of COVID 19 vaccine and has received a total 698 reports of adverse events following immunization.

Table 1: All COVID-19 AEFI reports received in relation to total doses administered, December 16, 2020 to January 31, 2022

	Number	Per 100k Doses Administered
Total AEFIs	698	32.6
Non-serious AEFIs	579	27.1
Serious AEFIs	119	5.7

Table 2: All COVID-19 AEFI reports received by COVID-19 vaccine product between December 16, 2020 and January 31, 2022

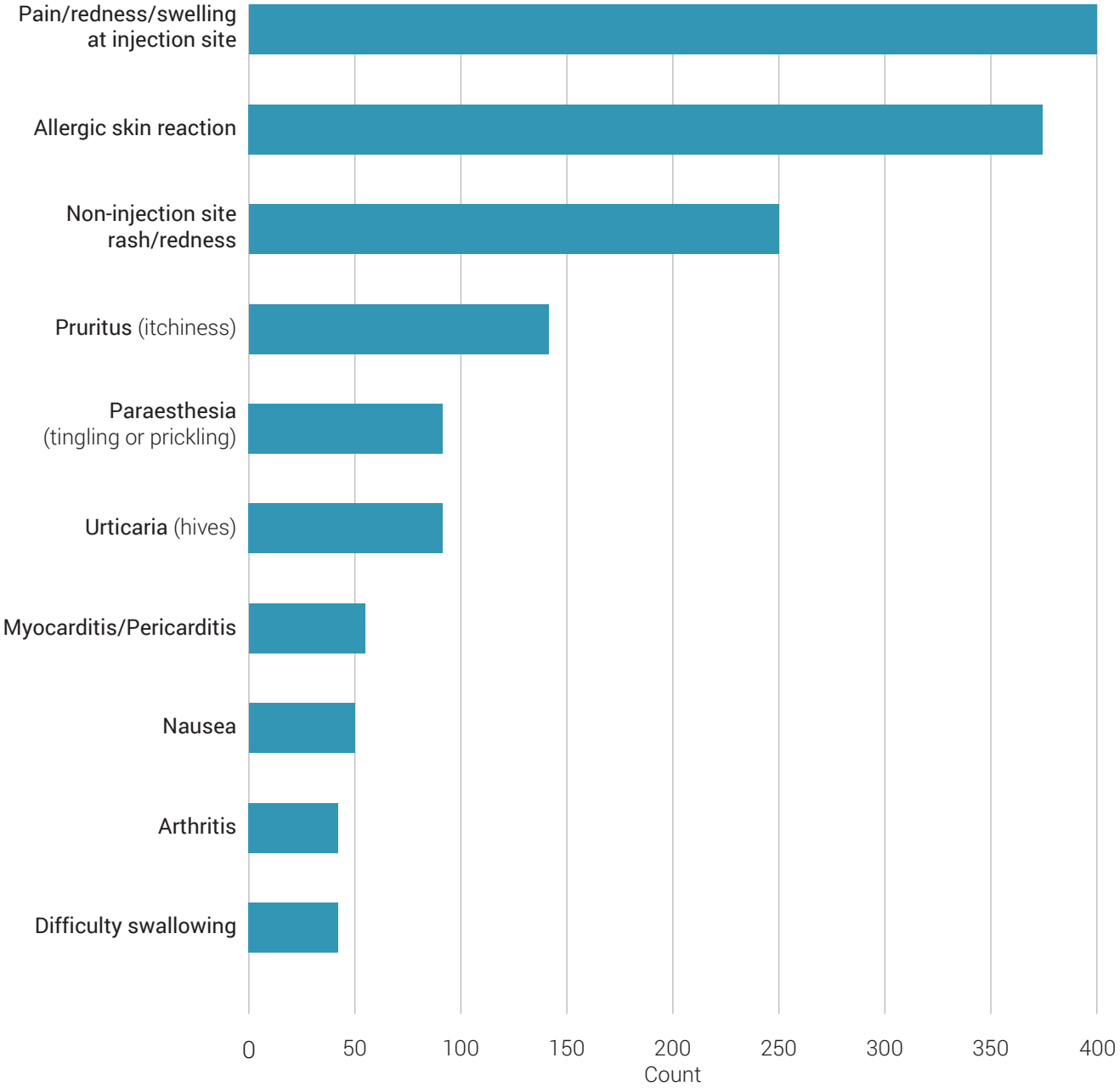
	Pfizer	Moderna	COVISHIELD/ AZ	Unknown/ Other	Total
Total Number of AEFIs Reported	415	220	60	3	698
Number of non-serious AEFIs	356	166	54	3	579
Number of Serious AEFIs	59	54	6	0	119
Total Number of Doses Administered	1399036	670901	61272	9096	2140305
Total AEFI reporting rate per 100,000 doses	29.7	32.8	97.9	NA	32.6
Serious AEFI reporting rate per 100,000 doses	4.2	8.0	9.8	NA	5.6

Table 3: Number of cases and rate of COVID-19 AEFI reports by age group and gender between December 16, 2020 and January 31, 2022

Age Group	Female		Male		Total	
	N	Rate per 100,000 doses	N	Rate per 100,000 doses	N	Rate per 100,000 doses
5-17*	14	18.9	9	11.8	23	15.3
18-29	56	37.0	36	25.2	92	31.2
30-49	178	61.8	45	17.5	223	40.9
50-64	152	52.8	49	18.8	201	36.6
65-79	77	31.8	47	21.4	124	26.9
80+	24	29.0	11	19.4	35	25.1
Total	501	44.5	197	19.4	698	32.6

*2 AEFI report in children 5-11 years of age

Number of the ten most frequently reported adverse events related to COVID-19 vaccines between December 16, 2020 and January 31, 2022



*An AEFI report may contain multiple adverse events. The total adverse event-specific counts may not equal the total number of AEFI reports. This does not include AEFIs classified in the composite "Other" category.

Serious Adverse Events Following Immunization Summary

An event is serious if it occurs within a specified time period after vaccination and it results in hospitalization, is life threatening or results in death.[i] These reports do not imply a causal relationship between the vaccine and the adverse event. Some unrelated medical events occur by chance after immunization, especially when thousands of people are being vaccinated.

Between December 16, 2020 and January 31, 2022, there have been a total 119 Serious Adverse Events Following Immunization reported in Nova Scotia.

107 of these adverse event reports required hospitalization

2 of these adverse event reports resulted in permanent disability

There were 10 reports of death within 30 days of vaccination. Reports of death are events temporally associated with vaccine that have not been clearly attributed to other causes. A preliminary review of these events indicated that none were clearly attributable to the vaccine.

Adverse Events of Special Interest Following Immunization

There are three adverse events of special interest (AESI) following immunization which are being actively monitored in Canada as safety signals. Nova Scotia has reported 58 cases of adverse events of interest.

Myocarditis/Pericarditis

- 54 cases
- Cases ranged from 18 to 71 years of age
- 68% (n=37) cases among adolescents/young adults under 30 years of age
- 89% (n=48) occurred after dose 2; one case occurred after dose 3
- 72% (n=39) required hospitalization
- 91% (n=49) occurred within 7 days of vaccination
- 70% (n=38) occurred after vaccination with Moderna;
  30% (n=16) occurred after vaccination with Pfizer

Guillain-Barre Syndrome

- 4 cases; these 4 events occurred after Moderna (1=Dose 1), Pfizer (1=Dose 1, 1=Dose 2) and COVISHIELD/AstraZeneca vaccine (1=Dose 1)

Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT)

- 2 cases; 2 events occurred after vaccination with COVISHIELD/AstraZeneca

DATA NOTES

Data Sources:

Nova Scotia data: Panorama and CanImmunize

Definitions

Adverse Events Following Immunization (AEFI): A serious or non-serious reaction experienced by a patient following immunization..

The numbers included in the report reflect the number of AEFIs with a status of "Review complete", "Review complete, follow-up required" or "Follow-up complete" AND a Public Health Agency of Canada report date entered into Panorama

Serious AEFI: An adverse event following immunization that has resulted in at least one of the following:

- hospitalization or prolongation of existing hospitalization
- permanent disability
- death

Non-Serious AEFI: An adverse event following immunization that has resulted in at least one of the following:

- a reaction that did not require hospitalization or prolongation of existing hospitalization
- a reaction that did not result in permanent disability
- a reaction that did not result in death

Adverse Events of Special Interest (AESI): Adverse Events of Special Interest are reactions that are of special interest because they are monitored at a national and international level.

Safety Signal: When an AEFI occurs at greater than expected frequency for a specific vaccine type or within a specific population group.

[i] https://health-infobase.canada.ca/covid-19/vaccine-safety/