

Considerations for Prevention and Management of Syncope in Vaccination Clinics

Syncope (vasovagal or vasodepressor reaction) can occur after vaccination and is most common in adolescents and young adults. Among all age groups, an estimated 89% of reported syncope episodes occur within 15 minutes of vaccine administration. This is within the minimum period of time required for observation after vaccination.

Prevention of syncope is not always possible. The National Immunisation Advisory Committee advises that appropriate support should be available in case of fainting (or anaphylaxis) after vaccine administration. Precautions should be in place to minimise injury from fainting.

The vaccination and observation area should be arranged so as to minimise injury in case of a faint.

The following should be considered:

- Having a drink or a snack prior to vaccination. The following advice to vaccinees should be considered:
 - For morning appointments, eat breakfast that morning
 - For appointments later in the day, have a snack before the vaccination appointment
 - Drink sufficient fluids before vaccination, especially in hot weather.
- Minimise numbers of people standing waiting to be vaccinated at any one time.
- Organise vaccination sessions to allow privacy for each person being vaccinated so that other people are not watching the procedure prior to their vaccine being administered.
- Minimise visual queues that may illicit fear before the vaccine e.g. needles not visible.
- Identify those who are particularly fearful and vaccinate them first.
- Reassurance about the procedure may help to prevent fainting.
- Allow or provide distractions e.g. a book, mobile phone, stress toy, bubbles, taking deep breaths
- Consider other elements of the CARD system (see links below)
- Vaccinees should be seated (or lying down) when being administered their vaccines in case of an immediate faint.

- There should be facilities in place in case of fainting (so that the person can be placed in a recumbent position/lie down or sit with head between knees for several minutes if lying down is not possible).
- Be aware of possible signs or symptoms of fainting, particularly if an individual has a past history of fainting after vaccinations or injections.
- Provide a nearby area for vaccinees to wait following vaccination. People should be seated (or lying down) during the period of observation. This area needs to be readily accessible to immunisation staff in the event of a faint or other immediate adverse event.

CARD

- The CARD system is an evidence based, patient centred care tool developed to reduce fear of vaccines for school based programmes.
- Tools, videos and further information about this can be found at the links below:
 - Tips for school-age children & teens | Immunize BC
<https://immunizebc.ca/children/have-positive-experience/tips-school-age-teens>
 - Managing immunization stress-related response: A contributor to sustaining trust in vaccines CANVax <https://www.canada.ca/content/dam/phac-aspc/documents/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2020-46/issue-6-june-4-2020/ccdrv46i06a10-eng.pdf>
 - The CARD™ System: A patient-centred care tool to ease pain and fear during school vaccinations | CANVax <https://canvax.ca/brief/cardtm-system-patient-centred-care-tool-ease-pain-and-fear-during-school-vaccinations>
 - Overview of a Knowledge Translation (KT) Project to improve the vaccination experience at school: The CARD™ System | Paediatrics & Child Health | Oxford Academic (oup.com)
https://academic.oup.com/pch/article/24/Supplement_1/S3/5421506?login=true

Management of Syncope:

If patient is experiencing possible signs or symptoms of fainting, take the following steps to prevent syncope and injury from falling:

Have the patient sit or lie down immediately

- Have the patient lie flat or sit with head between knees for several minutes; it may be helpful to loosen any tight clothing and apply cool, damp cloths to the person's face and neck
- Observe the patient until symptoms completely resolve and they are fully recovered. Recovery of consciousness occurs within a minute or two, but patients may take some more time to recover fully. Fainting is sometimes accompanied by brief clonic seizure activity (i.e. rhythmic jerking of the limbs, but this requires no specific treatment or investigation).

References:

1. Immunisation Guidelines for Ireland. National Immunisation Advisory Committee. Available from: <https://www.rcpi.ie/Healthcare-Leadership/NIAC/Immunisation-Guidelines-for-Ireland>
2. Supporting Information for Staff. Schools Immunisation Programme. Health Service Executive <https://www.hse.ie/eng/health/immunisation/hcpinfo/schoolproghcp/supportingdoc.pdf>
3. Centers for Disease Control and Prevention. Vaccine Safety. Available from: <https://www.cdc.gov/vaccinesafety/concerns/fainting.html>
4. Centers for Disease Control and Prevention (CDC). Syncope after vaccination-- United States, January 2005-July 2007. [MMWR Morb Mortal Wkly Rep. 2008 May 2;57\(17\):457-60. PMID: 18451756.](https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5717a01.htm)
5. Immunization Action Coalition. Guidance for Preventing Fainting and Associated Injuries after Vaccination Available from: <https://www.immunize.org/technically-speaking/20120401.asp>