

Top 10 Things Every Health Care Provider Should Do When Administering Vaccines

Colorado Immunization and Information System (CIIS) staff is sometimes contacted for guidance about correcting vaccine administration and documentation errors. Errors include administering the wrong vaccine, using the wrong route for vaccine administration, and incorrect or inaccurate vaccine administration documentation. Health care providers have a responsibility to ensure that vaccines are administered safely and effectively. Incorrectly administered vaccines may harm patients and might not protect against vaccine-preventable diseases (VPDs). Additionally, incorrect vaccine administration documentation may result in doses being repeated unnecessarily. Below is some important information that every health care provider (e.g., medical assistants, nurses, mid-level providers, physicians) should adhere to when administering vaccines to their patients:

There were 1,895 reports submitted to the Vaccine Adverse Event Reporting System (VAERS) between January 1, 2006 and September 30, 2007 that contained a code indicating an administration error. Errors included using the wrong route to administer the wrong vaccine to the wrong patient. This can be prevented by always following these six rights of medication administration¹ and receiving the proper training and education:

1. **Right patient:** Patients may have the same name and/or date of birth. Also, in some circumstances, providers may have several children of the same family being seen during the same clinic visit. It can be easy to confuse immunization records and children of the same family. Always double check to make sure you have the right patient by verifying the patient's name (including spelling) and date of birth prior to vaccine administration.
2. **Right vaccine and diluent:** Make sure to double check, even triple check, the vaccine label before administering the vaccine. Vaccines often have similar packaging. Physically separate stocks of similarly packaged vaccines and similar formulations and place visual alerts (e.g., "For Use in 9-26 Year-Olds Only," etc.) on the products. The Immunization Action Coalition's (IAC) ["Vaccines with Diluents: How to Use Them"](#) provides detailed information about each vaccine and its diluents.
3. **Right time (includes the correct age, appropriate interval, and use before the vaccine or diluent expires):** Follow the [Centers for Disease Control and Prevention \(CDC\) immunization schedules](#). Make sure you adhere to minimum ages and intervals between doses of vaccines. Remember that minimum ages/intervals must also be met for all vaccine components when administering combination vaccines. View the ["Recommended and Minimum Ages and Intervals Between Doses of Routinely Recommended Vaccines" table](#).

¹ Weaver, Donna. "Vaccine Administration." Lecture, Epidemiology and Prevention of Vaccine-Preventable Diseases Course, Breckenridge, CO, July 30, 2014.

4. **Right dosage:** Recommendations for dosage, route and body site of vaccines are derived from data gathered during clinical trials, practical experience, normal periodicity of health care visits, and theoretical considerations. The Advisory Committee on Immunization Practices (ACIP) discourages variations from the recommended route, site, volume, or number of doses of any vaccine. Vaccine dosage may vary depending on the age of the patient. Make sure to follow the prescribing information listed in the product's package insert. [Each vaccine's package insert is available from the IAC.](#)
5. **Right route, needle length, site and technique:** Different vaccines may be administered by different routes and at different sites. View the IAC's "[Administering Vaccines: Dose, Route, Site, and Needle Size](#)" guidance sheet. Additionally, IAC has resources to assist in "[How to Administer Intradermal, Intranasal, and Oral Vaccinations](#)" and immunization site maps are available from the [California Department of Health's Immunization Branch](#).
6. **Right documentation:** If the vaccine wasn't documented, it wasn't given. Vaccine administration documentation required by the National Childhood Vaccine Injury Act (42 U.S.C. §300aa-26) is listed in "[Instructions for the Use of Vaccine Information Statements.](#)" Documentation requirements include date of administration; vaccine manufacturer; vaccine lot number; name and title of the person administering the vaccine; facility address where the permanent record is kept; the date printed on the Vaccine Information Statement (VIS) and the date the VIS is given to the patient or parent/guardian.
7. **Administer vaccines safely.** Patients should be screened for any contraindications prior to vaccine administration. View the IAC's "[Guide to Contraindications and Precautions to Commonly Used Vaccines.](#)" Patients should be seated for vaccination. Syncope (fainting) has been reported among adolescents who received HPV and other vaccines recommended for this age group (Tdap and MCV). Health care providers should consider observing patients, particularly adolescents, for 15–20 minutes after vaccination.
8. **Train staff before they give vaccines.** All staff--permanent and temporary--who will be administering vaccines, should receive competency training before giving vaccines to patients. It is important to ensure that staff members with vaccination experience truly know how to administer vaccines correctly because it is possible that someone may have been incorrectly trained on a previous job. The IAC's "[Skills Checklist for Immunization](#)" is helpful when orienting new employees.

9. **Stay updated on vaccine administration.** Vaccine administration has become more complicated due to new vaccines, combination vaccines, and the increasing complexity of the immunization schedule. The [CDC](#), [IAC](#) and [Colorado Immunization Section](#) are great resources for information about vaccines and VPDs, vaccine storage and handling, and vaccine administration.

10. **Know your limitations and never assume you know everything about vaccine administration.** Know your own limitations and your profession's scope of practice. Don't feel obligated to perform functions (including administering different vaccines) if you are not skilled and knowledgeable enough to do so safely. If you are not sure how to do something, get additional guidance from more experienced, knowledgeable supervisors and co-workers before proceeding. If you are a medical assistant or a nurse, always ask the provider for clarification if you have questions about the provider's order. You may contact the Colorado Department of Regulatory Agencies (DORA) at (303) 894-7800 if you are unsure of your profession's scope of practice. If you do make a vaccine administration error, learn from it so that you don't repeat it and report the error to [VAERS](#) if an adverse event resulted from the error. Otherwise, report the error to the [Institute for Safe Medication Practices \(ISMP\) National Vaccine Error Reporting Program \(VERP\)](#).

If you have questions or need additional information about this topic, please contact CIIS User Support at (888) 611- 9918 or CDPHE.CIIS@state.co.us