



## The Business Case for Pricing Vaccines and Immunization Administration

Developed by AAP Private Payer Advocacy Advisory Committee

One of the goals of the American Academy of Pediatrics (AAP), shared by the American Academy of Family Physicians (AAFP) and the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) is to promote maximum immunization coverage for all infants, children, adolescents, and young adults. To achieve this goal, physicians must be reimbursed for the full costs (direct and indirect) of providing the immunization. As new vaccines are introduced into the AAP, AAFP and ACIP schedule, how should the practicing pediatrician price them to ensure recovery of direct and indirect costs and what payments are appropriate from the insurers? To answer this question, we must first accept the fact that a pediatric practice is really a business entity and must run on sound, generally accepted business principals to remain viable. These new vaccines have become increasingly expensive, necessitating a more business-like approach. What does this mean? For universal purchase states, this only means getting an acceptable immunization administration fee, as there are no direct vaccine purchase costs. But as we will see below, there are indirect costs in maintaining vaccines that need to be recovered.

### Vaccine Related Expenses

1. Purchase price (acquisition cost) of the vaccine. This is the amount paid by the physician for the vaccine. A public source on the manufacturer's price for vaccines can be accessed on the CDC Vaccine price list for the private sector prices at: <http://www.cdc.gov/vaccines/programs/vfc/cdc-vac-price-list.htm>
2. Personnel costs for ordering and inventory. Medical office staff (clinical and administrative) time to monitor vaccine stock, place orders, negotiate costs, delivery and payment terms, and monitor storage procedures (locks, alarms, temperature controls, etc.)
3. Storage costs: Since the vaccines must be stored at a specific temperature, there are equipment costs: refrigerator(s), freezer(s); locks, alarm systems, temperature monitoring devices, generators for continued electrical supply (all of which are depreciated).
4. Insurance to insure against loss of the vaccine.
5. Wastage/non-payment: There is an estimated wastage/non-payment of at least 5% (this should be accurately accounted for in each office). This includes drawing up the vaccine and having the patient/family reconsider and subsequent nonpayment as well as non-payment despite collection efforts.
6. Lost opportunity costs. The cost that is often forgotten is the cost of the money invested in vaccine inventory. A recent inventory at a 10 provider, 3 location pediatric group showed that they had \$100,000 in vaccine inventory. Any business that invested that money in a product would expect a reasonable return on investment and so should every pediatric practice.

Immunization Administration Expenses: This service is separately reportable from the vaccine product. Some payers mistakenly believe that inadequate vaccine payments can be made up by nominal immunization administration fees. However, these are two separate expenses.

The Centers for Medicare and Medicaid Services (CMS) uses its Medicare Resource-Based Relative Value Scale (RBRVS), which assigns relative value units (RVUs) to services based on the resources utilized. The RVUs of a CPT code take into account the physician work, practice expenses, and professional insurance liability expenses associated with that service.

1. Physician Work: The total value of physician work contained in the Medicare RBRVS physician fee schedule includes:

- Physician time required to perform the service
- Technical skill and physical effort
- Mental effort and judgment
- Psychological stress associated with the physician's concerns about the iatrogenic risk to the patient

Practice Expense: Medicare RBRVS uses both direct and indirect practice expenses to determine practice expense RVUs, including the resources used within the facility or physician's office (or patient's home) in providing the service. The practice expense component of the immunization administration fee includes: 1) clinical staff time (RN/LPN/MA blend, including time for vaccine registry input, refrigerator/freezer temperature log monitoring/documentation, and refrigerator/freezer alarm monitoring/documentation); 2) medical supplies (1 pair non-sterile gloves, 7 feet of exam table paper, 1 OSHA-compliant syringe with needle, 1 CDC information sheet, 2 alcohol swabs, 1 band-aid) and; 3) medical equipment (exam table, dedicated full size vaccine refrigerator with alarm/lock [commercial grade], and refrigerator/freezer vaccine temperature monitor/alarm).

2. Professional Liability Insurance Expense: The professional liability insurance RVUs assigned to a code are based on CMS historic malpractice claims data.

These three components are combined to create total RVUs (see Table below). Under Medicare RBRVS, the injectable pediatric immunization administration codes (CPT codes 90465 & 90466) and the non-age specific immunization administration codes (CPT codes 90471 & 90472) have the same RVU while the oral/intranasal pediatric (CPT codes 90467 & 90468) and non-age-specific (CPT codes 90473 & 90474) codes are similarly valued. With the 2009 Medicare conversion factor of \$36.0666, this translates to \$20.92 for 90465 and 90471; \$10.46 for 90466 and 90472; \$13.71 for 90467 and 90473, \$10.10 for 90468, and \$9.02 for 90474 on the 2009 Medicare RBRVS physician fee schedule.

**2009 Medicare Relative Value Units for Immunization Administration**

CPT code and description	Physician Work RVUs	Practice Expense RVUs (Non-facility)	Professional Insurance Liability RVUs	Total RVUs	Total RVUs x 2009 Medicare conversion factor (\$36.0666) = Medicare Amount
90465 Immunization administration under age 8 with physician counseling, one injection	0.17	0.40	0.01	0.58	\$20.92
90471 Immunization administration, one injection	0.17	0.40	0.01	0.58	\$20.92
90466 Immunization administration under age 8 with physician counseling, each additional injection	0.15	0.13	0.01	0.29	\$10.46
90472 Immunization administration, each additional injection	0.15	0.13	0.01	0.29	\$10.46
90467 Immunization administration under age 8 by intranasal/oral route, first administration	0.17	0.20	0.01	0.38	\$13.71
90473 Immunization administration by intranasal/oral route, first administration	0.17	0.20	0.01	0.38	\$13.71
90468 Immunization administration under age 8 by intranasal/oral route, each additional administration	0.15	0.12	0.01	0.28	\$10.10
90474 Immunization administration by intranasal/oral route, each additional vaccine	0.15	0.09	0.01	0.25	\$9.02

So what should be the final price for a vaccine that ensures recovery of direct and indirect costs? If you are receiving adequate immunization administration fees, then the vaccine charge should stand on its own. Payments need to cover the purchase price, the office expenses as noted above and a return on the investment for the dollars invested in vaccine inventory. When you add this up, we estimate that the total costs of providing the vaccine is approximately 17-28% above the direct vaccine purchase price. If the immunization administration fee is less than appropriate, then this either needs to be renegotiated or additional costs moved into the vaccine charge.

Insurers understand business principles including the concept of return on investment and expect it in their business. There is no reason we should accept their refusal to recognize it in our business by paying only the vaccine purchase price. They pass on their increased costs to their purchasers to maintain profitability. We have a legitimate business case to make for adequate payment for vaccines and immunization administration and we must all make it.

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