AIRA
AMERICAN IMMUNIZATION REGISTRY ASSOCIATION

INFORMATION REQUEST

Topic: Vaccine Administration Errors

Request Date: June 20, 2019

Information Requested:

The Colorado Immunization Information System (CIIS) is currently working on developing guidance documents on Vaccine Administration Errors discovered during their onboarding process.

1. Do any other IIS have a Vaccine Administration Error protocol that they'd be willing to share?
2. If you have a protocol in place, how are these errors discovered, what are the most common type of errors, what feedback/guidance is provided?

Requesting Member: Vanessa Willis (CO)

Responding Member(s): Kathryn Cruz (NM), Jacqueline Logan (TN)

Results:

NM:

We have an overall common list of errors, it is attached. In the attachment, there is a specific part – the administration of the vaccine (screen shot below). In addition to these, we also look at the RXA 11.4 administered location. We look at it because we want to know what location is sending the information, so we can specifically break down the errors for the location if they are present. We look for these in the testing phase to make sure the information is present. We also let them know if specific pieces are missing, then it will not post any information in the record at all. I make it clear to the location what we need so that we don't run into issues down the road. Should a down the road issue occur then they get a report that specifically leads them to the RXA segment and what needs to be fixed. From there they reach out to me and we help them out.

RXA-5	Administered Code
RXA-7	Administered Units
RXA-17	Substance Manufacturer Name
RXA-22	System Entry Date/Time
RXA-22	Administering Provider Name

TN:

1. We do not have a formal protocol documented about our onboarding process and identifying errors in vaccine administration, but we do evaluate vaccines reported during onboarding for clinical appropriateness for every provider when we do a data quality review.

2. The epidemiologist (Jackie Logan) pulls the HL7 messages submitted from the IIS databases and analyzes the values submitted with SAS code. The code breaks the HL7 message into fields and compares these values with the CDC, CVX, and NDC code sets. The evaluation includes: patient birthdate, date of vaccination, age of patient on date of administration, vaccination administered (code – CVX and NDC), vaccine status (active, inactive, never active), vaccine administered (description), administration code (00-08), administration text (historical or administered), completion status, and action code.

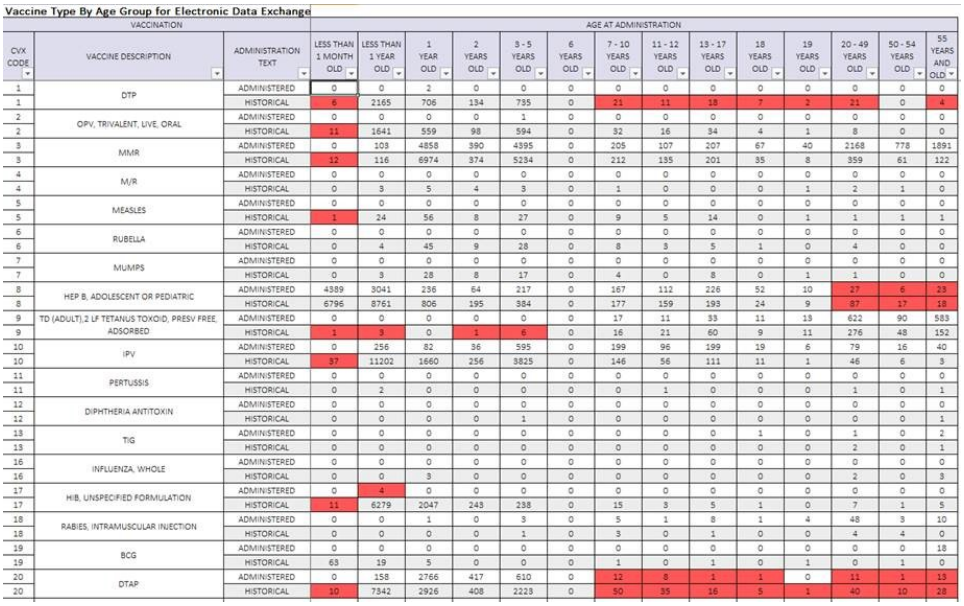
   Our clinical consultant (David Baron) reviews the report to make sure 1) the age at administration is appropriate for the vaccination given, 2) the description in RXA-5 matches the code reported in RXA-5, 3) if an NDC code is submitted, it matches the CVX code also submitted, and 4) if the vaccination is reported as administered, the vaccine status is active.

   An example of the feedback we provide if a provider submitted a CVX code 100 (PCV 7) for an administered dose after 2011: “CVX code 100 is for pneumococcal conjugate vaccine (PCV7). This is an inactive code. Pneumococcal conjugate vaccine PCV13 (CVX code 133) replaced PCV7 in 2011. CVX code 100 should only be used to document historical doses of PCV7.”

   Our clinical consultant consolidates the review into corrections needed and recommendations. If corrections are identified, the provider is not approved for TennIIS production and must correct the issue before submitting additional messages for review.

We also monitor vaccine quality on an ongoing basis in production (and could use this report during onboarding). This is another SAS report we created that evaluates the age at administration for all vaccines received via HL7 or direct data entry overall. See screenshot below. The table sums the number of vaccines by each age group and flags the vaccines submitted in error (for example: Hep B pediatric doses being reported for adults). There

are subsequent tabs that go into each vaccine reported in error and identify either the individual user who entered the vaccine or the organization that submitted the HL7 message.



Vaccine Type By Age Group for Electronic Data Exchange

VACCINATION			AGE AT ADMINISTRATION													
CVX CODE	VACCINE DESCRIPTION	ADMINISTRATION TEXT	LESS THAN 1 MONTH OLD	LESS THAN 1 YEAR OLD	1 YEAR OLD	2 YEARS OLD	3 - 5 YEARS OLD	6 YEARS OLD	7 - 10 YEARS OLD	11 - 12 YEARS OLD	13 - 17 YEARS OLD	18 YEARS OLD	19 YEARS OLD	20 - 49 YEARS OLD	50 - 54 YEARS OLD	55 YEARS AND OLD
1	DTP	ADMINISTERED	0	0	2	0	0	0	0	0	0	0	0	0	0	0
1		HISTORICAL	6	2165	706	134	735	0	21	11	18	7	2	21	0	4
2	OPV, TRIVALENT, LIVE, ORAL	ADMINISTERED	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2		HISTORICAL	11	1641	559	98	594	0	32	16	34	4	1	8	0	0
3	MMR	ADMINISTERED	0	103	4858	390	4395	0	205	107	207	67	40	2168	778	1891
3		HISTORICAL	12	116	6974	374	5234	0	212	135	201	35	8	359	61	122
4	M/R	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4		HISTORICAL	0	3	5	4	3	0	1	0	0	0	1	2	1	0
5	MEASLES	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5		HISTORICAL	1	24	56	8	27	0	9	5	14	0	1	1	1	1
6	RUBELLA	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6		HISTORICAL	0	4	45	9	28	0	8	3	5	1	0	4	0	0
7	MUMPS	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7		HISTORICAL	0	3	28	8	17	0	4	0	8	0	1	1	0	0
8	HEP B, ADOLESCENT OR PEDIATRIC	ADMINISTERED	4389	3041	236	64	217	0	167	112	226	52	10	27	6	23
8		HISTORICAL	6796	8761	806	195	384	0	177	159	193	24	9	87	17	18
9	TD (ADULT), 2 LF TETANUS TOXOID, PRESV FREE, ADSORBED	ADMINISTERED	0	0	0	0	0	0	17	11	33	11	13	622	90	583
9		HISTORICAL	1	3	0	1	6	0	16	21	60	9	11	276	48	152
10	IPV	ADMINISTERED	0	256	82	36	595	0	199	96	199	19	6	79	16	40
10		HISTORICAL	37	11202	1660	256	3825	0	146	56	111	11	1	46	6	3
11	PERTUSSIS	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11		HISTORICAL	0	2	0	0	0	0	0	1	0	0	0	1	0	1
12	DIPHTHERIA ANTITOXIN	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12		HISTORICAL	0	0	0	0	1	0	0	0	0	0	0	0	0	1
13	TIG	ADMINISTERED	0	0	0	0	0	0	0	0	0	1	0	1	0	2
13		HISTORICAL	0	0	0	0	0	0	0	0	0	0	0	2	0	1
16	INFLUENZA, WHOLE	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16		HISTORICAL	0	0	3	0	0	0	0	0	0	0	0	2	0	3
17	HIB, UNSPECIFIED FORMULATION	ADMINISTERED	0	4	0	0	0	0	0	0	0	0	0	0	0	0
17		HISTORICAL	11	6279	2047	243	238	0	15	3	5	1	0	7	1	5
18	RABIES, INTRAMUSCULAR INJECTION	ADMINISTERED	0	0	1	0	3	0	5	1	8	1	4	48	3	10
18		HISTORICAL	0	0	0	0	1	0	3	0	1	0	0	4	4	0
19	BCG	ADMINISTERED	0	0	0	0	0	0	0	0	0	0	0	0	0	18
19		HISTORICAL	63	19	5	0	0	0	1	0	1	0	1	0	1	0
20	DTAP	ADMINISTERED	0	158	2766	417	610	0	12	8	1	1	0	11	1	13
20		HISTORICAL	10	7342	2926	408	2223	0	50	35	16	5	1	40	10	28