



# ImmuCast

## Release Notes

v5.22.0



## Support Services

For general support on this product, contact your system administrator or help desk. For up-to-date documentation, visit the STC Documentation Portal at <https://documentation.stchome.com/>.

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This documentation describes the following: ImmuCast 5.22.0 (and IWeb Forecaster) release notes

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# Introduction

This release contains schedule changes that may affect the group of patients you select to be re-forecasted. Detailed descriptions and test cases follow below in the ticket descriptions.

Please note that testing scenarios do not have a grace period applied.

Also note that Forecast, Forecaster, and ImmuCast are used interchangeably throughout this document.

## Apply the Release

Apply the release by executing either the included `forecast.bat` or `forecast.sh` file. Prior forecast releases through version 5.21.0 should have already been applied. Log files, which are created in the same folder from where the release is executed, can be reviewed for errors. To determine the current version of ImmuCast, execute this statement from SQLPlus:

```
SQL> select max(version) from h33_forecast_version where insert_stamp =  
(select max(insert_stamp) from h33_forecast_version);
```

If the version number returned is not 5.21.0, download and apply the previous releases prior to applying this. Log files are created in the folder from where the release is executed and can be reviewed for errors. The correction included in v5.21.1 is included in this release so it is not necessary to apply 5.21.1 first.

### For ImmuCast (Stand-Alone Forecaster)

After applying the release, restart Tomcat to enable and cache any new vaccine codes into memory.

### For IWeb Only

The database should be reforecast when there have been multiple changes to forecasting. Please be aware that this can affect a large number of patients and is best accomplished over a weekend.

If IWeb is hosted by STC, please contact the Help Desk if you would to re-forecast a specific patient group other than what is noted as affected for this release.

Non-STC hosted clients may perform these steps to mark patients for reforecasting.

Executing the H33\_MARK\_FORECAST procedure in sqlplus (`SQL> exec h33_mark_forecast`) will flag all patient records to be reforecast. The procedure may

also be run for a specific age range (in years). Example: `SQL> exec h33_mark_forecast (4,6)` will flag patient records for 4 years through 6 years of age.

## Patient Groups Affected by this Release (v5.22.0)

If your database will be reforecast for this release, the following are patient ranges that we believe to be most affected by the changes in this release. You may wish to limit your reforecast to these ranges to limit the scope of your reforecast.

- Patients between the ages of 7 yrs and 11 yrs who will need a Tdap at 11 years of age.

## CDSi Changes in v5.22.0

As part of this release, routine maintenance and CDSi alignment was performed for the following vaccine groups: DTaP/Tdap/Td. Per CDSi guidance, DTaP dose 4 will be recommended at 15 months of age with a minimum age of 12 months. To continue forecasting the recommended age as 12 months for this dose, you may set a forecast preference for DTaP #4 by setting the Vaccine Family to DTaP, Dose Number 4, Recommended Age 12 months. This will override the 15 month setting for Recommended Date.

# New Features/Improvements

The following are new features, functionalities or enhancements in this version of ImmuCast.

- Implementation of the April 27, 2018 MMWR recommendation for Tdap administration at 11-12 years of age in children who received Tdap as part of the catch-up series before 10 years of age. Tdap administered at  $\geq 10$  years of age is accepted as the adolescent dose.
- Addition of CVX 19 - BCG vaccine group into tables. This vaccine group is not included in the forecasting logic.
- Addition of CVX 195 - DT, IPV adsorbed (non-US vaccine) into Td and IPV forecasting
- Addition of CVX code 196 - Td, adsorbed, preservative free, adult use, Lf unspecified into Td forecasting
- Implementation of CDSi logic for an "inadvertent vaccine" as it relates to Tdap (HDS-457)
- The start date for influenza forecasting has been adjusted to 7/01 to be CDSi compliant.
- Recommendations for the 2019-2020 flu season have been implemented.
- Resolution of an issue observed for the evaluation of CVX 149, influenza, live, intranasal, quadrivalent. The warning for "Influenza nasal administered to  $< 2$  years of age or  $> 49$  years of age." will now display for doses administered after 2010.

# Details for v5.22.0

The following lists the detailed information about each of the tickets addressed in v5.22. These test cases are also available in the STC Forecasting Test Bank [here](#).

Key	Vaccine Group	Description						
HDSD-452	Flu	This adds a warning for the third dose for instances in which a child under 9 has three doses in the same flu season.						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case</b> <b>FLU 2019-2</b> Warning for child under 9 with 3 doses in the same flu season	DOB 01/01/2017	Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	07/01/2017	Y				
	Assessment Date 11/01/2017		10/01/2017	Y				
			Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	11/01/2017	N	07/01/2018	07/01/2018	07/28/2018

Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case</b> <b>FLU-2019-3</b> Child under 9 with 3 doses	DOB 01/01/2017	Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	07/01/2017	Y				
	Assessment Date 11/01/2018	Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	10/01/2018	Y				
		Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	11/01/2018	Y	07/01/2019	07/01/2019	07/28/2019	
Key	Vaccine Group	Description						
Internal	Flu	This change implements influenza forecasting with 2019-2020 recommendations. Rules: <ul style="list-style-type: none"> <li>• If child is &lt; 9 years of age <b>and</b> has only received <b>1 flu dose in a previous season</b>, then recommend 2 doses this season.</li> <li>• If child is &lt; 9 years of age <b>and</b> has received a <b>total of 2 doses in previous seasons</b>, then forecast 1 dose this season. (The total doses do not have to have been given in the same season.)</li> <li>• If child is &gt;= 9 years of age, then recommend 1 dose this season.</li> </ul>						



Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case FLU-2019-4</b> Child under 9 with 1 dose in the previous season	DOB 01/01/2015  Assessment Date 10/01/2019	Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	07/01/2018	Y	07/28/2019	07/29/2018	08/25/2018	
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case FLU 2019-5</b> Child under 9 with 2 doses in the previous season	DOB 01/01/2015  Assessment Date 10/01/2019	Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	10/01/2018	Y				
		Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	12/01/2018	Y	07/01/2019	07/01/2019	07/28/2019	
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case FLU 2019-6</b> Child over 9 with only one dose	DOB 01/01/2008  Assessment Date 10/01/2019	Influenza, injectable,quad rivalent, preservative free, pediatric, CVX 161	10/01/2017	Y	07/01/2018	07/01/2018	07/28/2018	

Key	Vaccine Group	Description						
Internal	Flu	<p>The start date for influenza forecasting has been adjusted to 07/01 to be CDSi compliant.</p> <p>Children under nine years old will be recommended the first dose due at 6 months of age, with a second dose 28 days later.</p> <p>Patients being forecast for the next flu season will receive a recommendation for the seasonal influenza dose on July 1st instead of October 1st</p> <p>Recommended and minimum dates will both return as July 1 with this change.</p>						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case</b> <b>FLU 2019-7</b> Adjusted season start date, patient over age 8	DOB 01/01/2001  Assessment Date 09/01/2019	Influenza, injectable, quadrivalent CVX 158	12/20/2018	Y	07/01/2019	07/01/2019	07/28/2019	
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case</b> <b>FLU 2019-8</b> Adjusted season start date, child under 8	DOB 01/01/2019  Assessment Date 09/01/2019	Influenza, seasonal, injectable, preservative free CVX 140	07/01/2019	Y	07/29/2019	07/29/2019	08/25/2019	

Key	Vaccine Group	Description
Internal	Flu	This resolves issues observed for the evaluation of CVX 149, influenza, live, intranasal, quadrivalent. The warning for "Influenza nasal administered to < 2 years of age or > 49 years of age." will now display for doses administered after 2010.

Key	Vaccine Group	Description
Internal	DTaP/Tdap/Td	<p>This addresses an issue in which the final DTaP dose was given at 4 years of age but the forecaster failed to forecast Tdap.</p> <p>Rules:</p> <ul style="list-style-type: none"> <li>• If patient is <math>\geq 4</math> yrs of age with no doses of DTaP at <math>\geq 4</math> yrs of age and is less than 7 yrs of age as of evaluation date, then forecast an additional DTaP with 6 month interval from last dose (assuming no contraindication for pertussis).</li> <li>• The 6 doses before 7 years rule is still in effect, even with the need for additional Pertussis-containing vaccines.</li> </ul> <p>Forecasting logic for these scenarios does not match the CDC guidance documents or CDSi's 4.0 specification but were made in consultation with Eric Larson.</p>

Test Scenario	Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-15</b> Patient $\geq 4$ yrs with no doses of DTaP after age 4 and is less than 7 yrs of age as of evaluation	DOB 01/01/2000	DTaP CVX 107	2/12/2000	Y			
	Assessment Date 04/08/2005	DTaP CVX 107	03/11/2000	Y			
		DTaP CVX 107	04/08/2000	Y			
		DTaP CVX 107	04/08/2001	Y			
		Td CVX 139	04/08/2005	Y	10/08/2005	10/08/2005	12/31/2006

Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-16</b> Patient turning age 7 during 6 month interval	DOB 01/01/2000	DTaP CVX 107	02/12/2000	Y				
	Assessment Date 10/01/2006	DTaP CVX 107	03/11/2000	Y				
		DTaP CVX 107	04/08/2000	Y				
		DTaP CVX 107	04/08/2001	Y				
		Td CVX 139	10/01/2006	Y	01/01/2007	01/01/2007	01/01/2007	Forecast is for Tdap

Key	Vaccine Group	Description					
Internal	DTaP/Tdap/Td	<p>Implementation of the April 27, 2018 MMWR recommendation for persons 7-10 years who receive a dose of Tdap administration as part of the catch-up series. If Tdap is administered inadvertently, the Tdap dose should not be counted as valid.</p> <p>2019 Catch Up Immunization Schedule:</p> <p>Children age 7–10 years who receive Tdap inadvertently or as part of the catch-up series should receive the routine Tdap dose at 11–12 years.</p> <p>DTaP inadvertently given after the 7th birthday:</p> <ul style="list-style-type: none"> <li>• Child age 7–10 years: DTaP may count as part of catch-up series. Routine Tdap dose at 11–12 should be administered.</li> <li>• Adolescent age 11–18 years: Count dose of DTaP as the adolescent Tdap booster.</li> </ul>					
Test Scenario	Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-3</b> Patient 7-10 years with dose of Tdap as part of the catch-up series	DOB 01/01/2007	DTaP, unspecified CVX 107	03/01/2007	Y			
	Assessment Date 05/01/2016	DTaP, unspecified CVX 107	04/01/2007	Y			
		DTaP, unspecified CVX 107	04/01/2008	Y			
		Tdap CVX 115	01/01/2014	Y			
		Tdap CVX 115	05/01/2016	N: Inadvertent dose	01/01/2018	01/01/2018	01/28/2020

Key	Vaccine Group	Description						
HDSD-457	DTaP/Tdap/Td	<p>This change implements CDSi logic for an "inadvertent DTaP/Td/Tdap vaccine", allowing the dose to be re-administered without an interval.</p> <p>Scenario 1:            If Tdap is administered as Dose 1, 2 or 3 at &lt; 84 months of age AND the intervals/age ARE NOT met AND the dose would have been INVALID if DTaP had been administered, THEN the Tdap dose will have the minimum age or interval warning and reforecast date will be from the last valid vaccination date.</p> <p>Scenario 2:            If Tdap is administered as Dose 1, 2 or 3 at &gt;&lt; 84 months of age AND the intervals/age ARE met AND the dose would have been VALID if DTaP had been administered, the dose will be evaluated as Invalid with warning:            "Tdap administered prior to 7 years of age and dose 1, 2, or 3 should be repeated with age appropriate vaccine" with reforecast date the same as the Invalid Tdap dose.</p>						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSi Test Case 2013-0058</b> Tdap as dose #1	DOB 01/22/2018	Boosterix CVX 115	03/22/2018	N Inadvertent				
	Assessment Date 02/21/2019	DTaP, unspecified CVX 107	05/24/2018	Y				
		DTaP, unspecified CVX 107	07/26/2018	Y				
		DTaP, unspecified CVX 107	02/21/2019	Y	08/21/2019	08/21/2019	09/19/2019	Forecast for DTaP

Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSi Test Case 2013-0069</b> Tdap at age 7 years-5 days. Current age 7 years	DOB 02/21/2012  Assessment Date 02/21/2019	Boosterix CVX 115	02/15/2019	N Inadvertent	02/21/2019	02/21/2019	02/21/2019	Forecast for Tdap
<b>Key</b>	<b>Vaccine Group</b>	<b>Description</b>						
HDSD-567	DTaP/Tdap/Td	This addresses a scenario in which minimum valid dates were returned as recommended dates for DTaP Dose #2.						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Scenario DTaP 2019-4</b> Recommended dates for DTaP Dose #2, following Pediarix	DOB 06/25/2018  Assessment Date 09/30/2018	Pediarix CVX 110	09/30/2018	Y	10/28/2018	10/28/2018	12/22/2018	Forecast for DTaP
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Scenario DTaP 2019-5</b> Recommended dates for DTaP Dose #2, following Pentacel	DOB 06/25/2018  Assessment Date 10/05/2018	Pentacel CVX 120	10/05/2018	Y	10/28/2018	10/28/2018	12/22/2018	Forecast for DTaP

Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSi Test Case 2013-0004</b> DTaP # 2 at age 10 weeks	DOB 12/13/2018	DTaP, unspecified CVX 107	01/24/2019	Y				
	Assessment Date 02/21/2019	DTaP, unspecified CVX 107	02/21/2019	Y	06/13/2019	03/21/2019	08/09/2019	Forecast for DTaP
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSi Test Case 2013-0005</b> DTaP # 2 at age 4 months	DOB 10/21/2018	DTaP, unspecified CVX 107	12/21/2018	Y				
	Assessment Date 02/21/2019	DTaP, unspecified CVX 107 DTaP, unspecified CVX 107	02/21/2019 12/21/2018	YY	04/21/2019	03/21/2019	06/17/2019	Forecast for DTaP



Key	Vaccine Group	Description						
Internal	DTaP/Tdap/Td	This implements the 6 doses before 4 year logic in which no additional doses of DTaP are forecast, even if some are invalid. The next recommended dose will be Tdap at age 7.						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSi Test Case 2013-0034</b> # 6 DTaP before age 4. Nothing more until Tdap at age 7 even if some are invalid.	DOB 08/21/2015	DTaP, unspecified CVX	10/21/2015	Y				
	Assessment Date 02/21/2019	DTaP, unspecified CVX 107	12/21/2015	Y				
		DTaP, unspecified CVX 107 DTaP, unspecified CVX 107	02/21/2016 12/21/2015					
		DTaP, unspecified CVX 107 DTaP, unspecified CVX 107	08/21/2017 02/21/2016					
		DTaP, unspecified CVX 107 DTaP, unspecified CVX 107	11/21/2017 08/21/2017	N Age: Too Young				

		DTaP, unspecified CVX 107DTaP, unspecified CVX 107	02/21/201911/21/2017	N Age: Too Young	08/21/2022	08/21/2022	08/21/2022	Forecast for Tdap	
Key		Vaccine Group		Description					
HDSD-586	DTaP/Tdap/Td	This resolves an issue in which a patient with a contraindication for Pertussis receives a forecast for Tdap. <b>Description</b>							
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment	
<b>STC Test Case DTaP 2019-6</b> Adolescent patient with Pertussis contraindication	DOB 04/09/2001	DTaP CVX 20	06/08/2001	Y					
	Assessment Date 08/08/2012	DTaP CVX 20	08/18/2001	Y					
		DTaP CVX 20	06/27/2002	Y					
		DTaP CVX 20	06/23/2005	Y					
		DTaP CVX 20	08/08/2012	Y					
		Add Permanent contraindication to Pertussis (CVX 11)				08/08/2022	08/08/2017	09/04/2022	<b>Forecast for Td</b>

Key	Vaccine Group	Description						
HDSD-818	DTaP/Tdap/Td	This resolves an issue in which the next dose of Tdap is recommended at age 50 for an adolescent patient following the primary DTaP series and first dose of Tdap.						
Test Scenario	Antigen	Vacc	Valid	Rec Date	Min Date	Past Due	Comment	
<b>STC Test Case DTaP 2019-7</b> Recommended dates for an adolescent patient following the primary DTaP series and first dose of Tdap	DOB 08/03/2005	DTaP, unspecified CVX 107	12/01/2011	Y				
	Assessment Date 09/14/2012	DTaP, unspecified CVX 107	01/04/2012	Y				
		DTaP, unspecified CVX 107	02/07/2012	Y				
		DTaP, unspecified CVX 107	07/13/2012	N: Invalid Vaccination: Minimum interval from previous dose not met.				
		Tdap CVX 115	09/14/2012	N: Invalid Vaccination: Minimum interval from previous dose not met.	03/14/2013	03/14/2013	03/14/2013	Forecast for Tdap

Test Scenario		Antigen	Vacc	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-8</b> Recommended dates for an adolescent patient following the primary DTaP series and first dose of Tdap	DOB 12/17/2006	DTaP, unspecified CVX 107	05/17/2013	Y				
	Assessment Date 02/20/2014	DTaP, unspecified CVX 107	06/18/201305/17/2013	Y				
		DTaP, unspecified CVX 107	08/20/201306/18/2013	Y				
		DTaP, unspecified CVX 107	01/21/201408/20/2013	Y				
		Tdap CVX 115	02/20/201401/21/2014	Y	02/20/2019	02/20/2024	03/19/2029	Forecast for Tdap
Test Scenario		Antigen	Vacc	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSI Test Case 2013-0070</b> Tdap at age 11 to child up-to-date with DTaP	DOB 12/15/2007	DTaP, unspecified CVX 107	02/17/2008	Y	02/20/2019	02/20/2024	03/19/2029	
	Assessment Date 02/21/2019	DTaP, unspecified CVX 107	04/19/2008	y				
		DTaP, unspecified CVX 107	06/21/2008	Y				

		DTaP, unspecified CVX 107	01/16/2008	Y				
		DTaP, unspecified CVX 107	02/12/2012	Y				
		Tdap CVX 115	02/21/2019	Y	02/21/2024	02/21/2029	03/20/2029	Forecast for Tdap
<b>Key</b>	<b>Vaccine Group</b>	<b>Description</b>						
HDSD-437 HDSD-633	DTaP/Tdap/Td	This issue resolves a defect in the returned minimum valid date for DTaP Dose #3. Dose #3 should be forecast 4 weeks after Dose #2. (i.e. the minimum valid date should be 4/23/2019) and not 5/23/2019. <b>Description</b>						
<b>Test Scenario</b>		<b>Antigen</b>	<b>Vacc Date</b>	<b>Valid</b>	<b>Rec Date</b>	<b>Min Date</b>	<b>Past Due</b>	<b>Comment</b>
<b>STC Test Case DTaP 2019-9</b> Minimum interval between Dose #2 and Dose #3	DOB 10/23/2018	DTaP, unspecified CVX 107	12/12/2018	Y				
	Assessment Date 03/26/2019	DTaP, unspecified CVX 107	03/26/2019	Y	05/23/2019	04/23/2019	06/19/2019	Forecast for DTaP

Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-10</b> Minimum interval between Dose #2 and Dose #3	DOB 12/10/2018 Assessment Date 03/26/2019	Pediarix CVX 110	02/11/2019	Y				
		Pediarix CVX 110	05/09/2019	Y	07/10/2019	06/06/2019	08/10/2019	Forecast for DTaP
<b>Key</b>	<b>Vaccine Group</b>	<b>Description</b>						
Internal	DTaP/Tdap/Td	This issue resolves an incorrect past due date for CDSi Test Case 2013-0024. This was discovered by STC. <b>Description</b>						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSi Test Case 2013-0024</b> Age 7. Two DTaP< 12 mos old & 1 ≥ 12 mo. Needs Tdap	DOB 08/24/2011 Assessment Date 08/26/2013	DTaP Unspecified CVX 107	11/24/2011	Y				
		DTaP Unspecified CVX 107	03/24/2012	Y				
		DTaP Unspecified CVX 107	08/26/2013	Y	08/24/2018	08/24/2018	08/24/2018	Forecast for DTaP

Key	Vaccine Group	Description						
HDSD-33	DTaP/Tdap/Td	This addresses an issue in which the recommended vaccination dates returned for Tdap are incorrectly forecasted decades into the future.						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-11</b> Recommended dates for Tdap	DOB 03/14/2000	DTaP, unspecified CVX 107	05/24/2000	Y				
	Assessment Date 06/29/2018	DTaP, unspecified CVX 107	08/01/2000					
		DTaP, unspecified CVX 107	09/13/2000					
		DTaP, unspecified CVX 107	09/18/2001					
		Tdap Unspecified CVX 115	06/29/2018	Y	06/29/2028	06/29/2023	07/26/2028	Forecast for Tdap
Key	Vaccine Group	Description						
HDSD-322	DTaP/Tdap/Td	This resolves an issue in which a dose given after expiration is incorrectly evaluated as Valid.						

Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-12</b> Evaluation of dose given after expiration	DOB 08/27/2002	Pediarix CVX 110	03/06/2019	Y				
	Assessment Date 04/03/2019	Pediarix CVX 110	04/03/2019 Edit and update compromised status to "Given after expiration date".	N Invalid DTAP/DT/Td Invalid POLIO Invalid Hep B Vaccine administered after lot number expiration date.	04/03/2019	04/03/2019	04/03/2019	Forecast for DTaP
<b>Key</b>	<b>Vaccine Group</b>	<b>Description</b>						
HDSD-819	DTaP/Tdap/Td	For a scenario in which a patient received 4 valid DTaP doses before age 4 and a Tdap dose at age 6 yrs, 6 mos, the warning indicator has been changed to read "Warning: Tdap administered prior to 7 years of age and dose number > 3 is counted as valid for DTaP."						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-13</b> Warning Indicator wording change	DOB 12/10/2007	Pentacel CVX 120	02/16/2008	Y				
	Assessment Date 07/06/2014	Pentacel CVX 120	04/19/2008	Y				
		Pentacel CVX 120	06/28/2008	Y				
		Pentacel CVX 120	05/16/2009	Y				



		Tdap CVX 115	07/06/2014	Warning: Tdap administered prior to 7 years of age and dose number > 3 is counted as valid for DTaP.	12/10/2018	12/10/2017	01/09/2024	Forecast for Tdap
Key		Vaccine Group	Description					
HDSD-153	DTaP/Tdap/Td	This addresses an error in the minimum and recommended dates for DTaP Dose #2 on the catch-up schedule.						
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>STC Test Case DTaP 2019-14</b> Minimum and recommended dates for Dose #2 on catch-up schedule	DOB 09/11/2018  Assessment Date 01/30/2019	DTaP Unspecified CVX 107	01/30/2019	Y	02/27/2019	02/27/2019	02/27/2019	Forecast for DTaP
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
<b>CDSi Test Case 2013-0077</b> DTaP #1 at age 6.5 years	DOB 08/21/2012  Assessment Date 01/30/2019	DTaP Unspecified CVX 107	02/21/2019	Y	03/21/2019	03/21/2019	03/21/2019	

# Known Issues for v5.22.0

The following are known issues and will be addressed in future releases:

## HPV

Recommendation Change: HPV Forecasting for 26 years old, no history

- Scenario: CDSi 2016-0013 Female age 26, No HPV doses. Forecaster does not return a recommendation. Setting to suppress first dose is not enabled. Age indication expanded by CDC in October 2018.
- The ACIP recommendation was issued June 2019: **ACIP approved vaccination of persons age 27–45 years based on “shared clinical decision making” between the patient and clinician.** *\*Shared clinical decision making means the decision to vaccinate persons age 27 through 45 years should be based on a discussion of benefits and risks between the patient and the clinician.* This decision is not considered final until it is published in the MMWR. This ticket is blocked pending publication.

Recommendation Change: Harmonize HPV catch-up schedule for male and female

- In June 2019, ACIP voted unanimously to harmonize the routine catch-up vaccination schedule for both males and females through age 26. This decision is not considered final until it is published in the MMWR. This ticket is blocked pending publication.

## Hib

Forecaster incorrectly recommends Dose #3 Hib at 4 week interval after dose 2, rather than an 8 week interval.

- Scenario: DOB 03/01/17 Dose #1 HIB-PRP-T on 05/19/17 at 2.6 months of age. Dose #2 was given on 10/05/17 at 7.2 months of age.
- Current behavior: Forecaster returned a recommended date of 11/02/20, only 4 weeks after the 2nd dose and the same as the minimum interval. This occurred because forecasting for Hib was previously changed to forecast based on the last vaccination date/patient age to match CDSi.
- Expected behavior: If the forecasts evaluates the patient’s current age as  $\geq 12$  months, the interval would be 8 weeks.
- Task: Determine method for forecasting based on supplied evaluation date. If evaluation date is null or “today”, the forecast should be based on patient’s current age.
- HDSAF-143

Forecaster correctly marks a Hib PRP-T dose as invalid but returns a "minimum interval not met" reason, rather than "minimum age not met".

- Scenario: DOB 08/23/2005. Patient received Hib (PRP-T) doses on 10/24/05, 01/10/2006, 02/27/2006, and 08/15/2006.
- Current behavior: Dose #4 is correctly marked as invalid. The reason for the invalid status displayed on the Vaccination Data Quality report is *Minimum interval from previous dose not met*.
- Expected behavior: Reason for invalid status is expected to display as *Minimum age for this dose not met*.
- HDS-499

Recommended Hib intervals between Dose #1 and Dose #2 are different for Hib PRP-OMP and Hib-PRP-T and display "Minimum" interval dates as "Recommended" interval dates.

- Scenario: Forecaster returns recommended date for dose 2 of 4 weeks after dose 1 if Hib PRP-T Dose #1 is given at 3 mos.
- Current behavior: Forecaster returns recommended date for dose 2 of 8 weeks after dose 1 if Hib PRP-OMP Dose #1 is given at 3 mos.
- Expected behavior: Forecaster should return recommendation with 4 week interval when first dose is given before the 1<sup>st</sup> birthday. Forecaster should return recommendation with 8 week interval when first dose is given between 12-14 months.
- HDS-567

## Mening B

Recommendation Change: Mening B Outbreak

- The following change in recommendation for Mening B was approved at the June ACIP meeting: During an outbreak: For persons age  $+>+10$  years determined by public health officials to be at increased risk during an outbreak, ACIP recommends a one-time booster dose if it has been  $+>+1$  since completion of a MenB primary series. A booster dose interval of  $+>+6$  months may be considered by public health officials depending on the specific outbreak, vaccination strategy, and projected duration of elevated risk.
- This decision is not considered final until it is published in the MMWR. This ticket is blocked pending publication.

Recommendation Change: Mening B Booster dose

- The following change in recommendation for Mening B was approved at the June ACIP meeting: For persons  $>10$  years with complement deficiency, complement inhibitor use, asplenia, or who are microbiologists, ACIP recommends a MenB booster dose 1 year

following completion of a MenB primary series followed by MenB booster doses every 2–3 years thereafter, for as long as increased risk remains.

- This decision is not considered final until it is published in the MMWR. This ticket is blocked pending publication.

## Pneumococcal

Forecast returns PCV13 recommendation 1 year after inadvertent PPSV.

- Scenario: DOB 3/1/19, PPSV23 dose given 4/30/19.
- Current behavior: Forecast returns PCV13 recommendation 1 year after inadvertent PPSV. PSV23 given at this age should not be considered to be part of the pneumococcal vaccination series. PCV13 should be administered as soon as the error is discovered.
- Expected behavior: Based on ACIP, PPSV23 given at this age should not be considered to be part of the pneumococcal vaccination series. PCV13 should be administered as soon as the error is discovered.
- HDSD-403, HDSD-455

Dose 2 incorrectly displays *Invalid PNEUMO (PCV): Minimum interval from previous dose not met.*

- Scenario #1: DOB: 08/10/2018, PCV13: 09/28/2018, 03/07/2019.
- Current behavior: Dose 2 incorrectly displays *Invalid PNEUMO (PCV): Minimum interval from previous dose not met.* Warning disappears with 4 day grace period.
- Expected behavior: Dose should not be marked as invalid.
  
- Scenario #2(related): DOB -8/30/2018, PCV 13 dose administered 03/28/2019
- Current behavior: Dose is incorrectly marked *Invalid PNEUMO (PCV): Minimum interval from previous dose not met,* even though it is the first dose on the record.
- Expected behavior: Dose should not be marked as invalid.
- HDSD-422, HDSD-418

Recommendation Change: PCV13 for Immunocompetent Older Adults

- The following change in recommendation for PCV13 in immunocompetent older adults was approved in June 2019: ACIP recommends PCV13 based on shared clinical decision making for adults 65 years and older who do not have an immunocompromising condition\*\* and who have not previously received PCV13. All adults 65 years and older should receive a dose of PPSV23.\*
- Of note, the recommendations for vaccination of adults at high risk of invasive pneumococcal disease (MMWR, Vol. 61, No. 40, pages 816-819) have not changed.
- This decision is not considered final until it is published in the MMWR. This ticket is blocked pending publication.

# Polio

OPV doses given after 4/1/2016 aren't marked as invalid

- Background: The forecast has been updated to make bivalent and trivalent OPV doses given on or after 4/1/16 as invalid based on the updated ACIP recommendations.
- Scenario: DOB 5/13/03, OPV unspecified 4/2/16, OPV unspecified 8/30/18.
- Current behavior: Forecaster does not invalidate these doses, despite being given after 4/1/2016.
- Expected behavior: OPV, unspecified given after 04/01/2016 should be evaluated as invalid, in the same way as OPV bivalent and OPV trivalent given after 04/01/2016.
- HDSD-457, HDSD-458

# Rotavirus

Rotavirus Dose #2 dates off (Found by STC during regression testing)

- Scenario: CDSi Test Case 2013-0773 DOB: 05/17/2018, RV1 Dose #1 08/24/2018,
- Current behavior: Forecaster returns Min 9/21, rec 10/19, past due 11/18
- Expected behavior: Min and rec 9/21, past due 11/03

Two Rotavirus CDSI test cases with correct evaluation but inaccurate reason (Found by STC during regression testing)

Scenario #1: CDSI 2013-0782

- DOB 12/18/2018 , CVX 116 on 01/27/2019 , CVX 116 on 02/21/2019
- Current behavior: Minimum Interval from previous dose not met
- Expected behavior: Evaluation of Not Valid due to Minimum age for this dose not met.

Scenario #2 CDSI 2013-0785

- DOB 11/20/2018, CVX 116 on 12/29/2018 , CVX 116 on 01/26/2019, CVX 116 on 02/21/2019
- Current behavior: Minimum Interval from previous dose not met
- Expected behavior: Evaluation of Not Valid due to Minimum age for this dose not met.

# Zostavax

Shingrix at age 18

- If a dose is inadvertently administered to an adult 18 through 49 years of age, CDC does not recommend repeating the dose but administering the second RZV dose on or after the 50th birthday. This guidance does not appear in the most recent zoster ACIP statement but is in the General Best Practices Guidance (Table 3-1 in the Timing and Spacing of

Immunobiologics section at [www.cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html](http://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/timing.html)) and is based on guidance from CDC's zoster subject matter experts.

- Task: Determine approach to this documentation.
- HDS-821

## Planned Logic Changes

### New Vaccine Forecasting

- Addition for forecasting logic for Twinrix Jr.

### Live Vaccine Rules

- HDS-535: Patient received OPV and MMR less than 28 days apart. MMR dose on 8/1/1988 is flagged as invalid but should be considered valid based on CDC General Recommendations on Immunization from the Pink Book. *"Parenteral live vaccines (MMR, MMRV, varicella, zoster, and yellow fever) and LAIV are not believed to have an effect on live vaccines given by the oral route (OPV, oral typhoid, and rotavirus). Live oral vaccines may be given at any time before or after live parenteral vaccines or LAIV."*
- HDS-519: Patient received RSV IGIV on 3/15/18 and then received MMR and varicella vaccines on 4/9/18. The MMR and varicella vaccines are incorrectly marked as invalid.

# Product Documentation

Product documentation is located on the STC Documentation Portal:  
<https://documentation.stchome.com/>.

The following documents are available for this version of ImmuCast:

- ImmuCast 5.18.1 User Guide
- ImmuCast 5.22 Release Notes