



ImmuCast

Release Notes

v5.22.2



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 5.22.2 (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 5.22.1 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 5.22.1, 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.

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 (v5.22.2)

- This update is creating a new CVX code and no prior forecasts will need to be updated since this code did not previously exist.

New Features/Improvements

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

Ticket	Description
HDSD-1553	Addition of new CVX Code 197 - influenza, high-dose seasonal, quadrivalent, preservative free

Bug Fix Summary

Ticket	Description & Impact
HDSD-1565	Patients with no prior influenza history were forecast for 07/01/2020 when evaluation date is \geq 01/01/2020. This issue has now been resolved to present accurate forecasting.

Details for v5.22.2

The following lists the detailed information about each of the tickets addressed in v5.22.2. These test cases are also available in the STC Forecasting Test Bank [here](#).

Key		Vaccine Group	Description					
			Refer to Bug Fix Summary above					
Test Scenario	Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment	
HDSD-1553 STC Test Case FLU 2020-1 influenza, high-dose seasonal, quadrivalent, preservative free – administered prior to 65 yrs of age.	DOB 01/01/1998 Assessment Date 01/02/2020	Influ high dose quadrivalent, pres free CVX 197	12/15/2019	Y	07/01/2020	07/01/2020	07/28/2020	Warning - TIV (Flu) High-Dose administered prior to 65 years of age.

Test Scenario	Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment	
HDS-1553 STC Test Case FLU 2020-2 influenza, high-dose seasonal, quadrivalent, preservative free – administered at 65+ yrs of age.	DOB 01/01/1954 Assessment Date 01/02/2020	Influ high dose quadrivalent, pres free CVX 197	12/15/2019	Y	07/01/2020	07/01/2020	07/28/2020	
Test Scenario	Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment	
HDS-1565 STC Test Case FLU 2020-3 No prior influenza history. Patient age >= 9 years of age.	DOB 01/01/2000 Assessment Date 01/02/2020				07/01/2019	07/01/2019	07/28/2019	
Test Scenario	Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment	
HDS-1565 STC Test Case FLU 2020-4 Patient age >= 9 years of age. 1 prior dose, no doses current season.	DOB 01/01/2000 Assessment Date 01/02/2020	Influenza quadrivalent, pres free CVX 150	11/01/2017	Y	07/01/2019	07/01/2019	07/28/2019	

Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
HDS-1565 STC Test Case FLU 2020-5	DOB 01/01/2016 Assessment Date 01/02/2020 No prior influenza history. Patient age < 9 years of age.				07/01/2016	07/01/2016	07/28/2016	
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
HDS-1565 STC Test Case FLU 2020-6	DOB 01/01/2016 Assessment Date 01/02/2020 1 prior dose influenza, patient age < 9 years of age.	Influenza, quadrivalent, pres free, pediatric CVX 161	11/01/2017	Y	11/29/2017	11/29/2017	12/26/2017	
Test Scenario		Antigen	Vacc Date	Valid	Rec Date	Min Date	Past Due	Comment
HDS-1565 STC Test Case FLU 2020-7	DOB 01/01/2016 Assessment Date 01/02/2020 2 prior doses influenza, patient age < 9 years of age. No doses current season.	Influenza, quadrivalent, pres free, pediatric CVX 161	11/01/2017	Y	11/29/2017	11/29/2017	12/26/2017	

		Influenza, quadrivalent, pres free, pediatric CVX 161	12/01/2017	Y	07/01/2019	07/01/2019	07/28/2019	
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Known Issues for v5.22.2

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 ≥ 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*.
- HDSD-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 1st birthday. Forecaster should return recommendation with 8 week interval when first dose is given between 12-14 months.
- HDSD-567

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. 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.
- 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.

- HDS-422, HDS-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.

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) 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
- ImmuCast 5.22.1 Release Notes
- ImmuCast 5.22.2 Release Notes