



ImmuCast

Release Notes





















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/.

Connect with Us on Social Media













Copyrights and Trademarks

© 2019 by Scientific Technologies Corporation (STC). All rights reserved.

This documentation describes the following: ImmuCast v5.20 (and IWeb Forecaster) release notes

No part of this publication may be altered, reproduced, transmitted, stored in a retrieval system, or translated into any human or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, or otherwise, without the prior written permission of the copyright owner.

This document, along with any embedded media, is provided for informational purposes only. Scientific Technologies Corporation (STC) provides this material "as is" and does not assert that this document is error free. The information contained herein may not necessarily accurately represent the current or planned functions of the application, and may be subject to significant and frequent modification. Scientific Technologies Corporation (STC) may change this document, any embedded content, and the product described herein at any time. Any changes will be incorporated in new versions of this document.

Scientific Technologies Corporation (STC) recognizes the rights of the holders of all trademarks used in its publications.

This document may provide hyperlinks to third-party websites or access to third-party content. Links and access to third-party sites are provided for your convenience only. Scientific Technologies Corporation does not control, endorse, or guarantee third-party content and is not responsible for any content, associated links, resources or services associated with a third-party site. Scientific Technologies Corporation shall also not be liable for any loss or damage associated with your use of any third-party content. (20181212)

Table of Contents

Introduction	1
Apply the Release	
For ImmuCast (Stand-Alone Forecaster)	
For IWeb Only	
Patient Groups Affected by this Release (v5.20)	
New Features in v5.20	
Bug Fixes Summary for ImmuCast v5.20	3
Bug Fixes Details for v5.20	6
Known Issues for v5.20	13
Product Documentation	13

Introduction

This release contains schedule changes that may affect the group of patients you select to be reforecasted. 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 <code>forecast.bat</code> or <code>forecast.sh</code> file. Prior forecast releases through version 5.18.8 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 5.18.8, download and apply the previous releases prior to applying this. If the release prior to and including 5.18.1 releases were not applied, edit the <code>forecast.bat</code> file (or <code>forecast.sh</code> if applying the batch with the shell script) and uncomment any lines with a later version number than the version number returned by your query so that they can be applied to the database. Log files are created in the folder from where the release is executed and can be reviewed for errors.

For example, if the release for 5.18.1 was not applied, uncomment that line in the file to include it when the release is executed:

```
REM sqlplus H33ASIIS/ASIIS@SIIS @forecast_patch5_18_1.sql
```

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.

IWeb versions prior to 5.17.5.2: Patients that are marked for reforecasting may interfere with the immediate deduplication of HL7 messages, because patients belonging to a particular organization will also be picked up by that organization's immediate deduplication session. Reforecasting patients in IWeb version 5.17.5.2 or later will not affect the deduplication of HL7 messages.

If IWeb is hosted by STC, please contact the Help Desk to ask that the current $v5.20_PreIWeb5.17.5.2_NeedsForecast.sql$ script included in this release be executed to mark patients for reforecasting. This will update the patients affected by this release. Non-STC hosted clients may perform these steps to mark patients for reforecasting.

After applying the database release, log in to SQLPlus as the H33ASIIS user. Execute the $v5.20_PreIWeb5.17.5.2_NeedsForecast.sql$ script included with this release to flag the patients affected by this release for reforecasting.

If you desire to reforecast all patients, execute the H33_MARK_FORECAST procedure ($SQL> exec h33_mark_forecast$) to flag patient records to be reforecast. The procedure may also be run for a specific birthdate range. For IWeb 5.17.5.2 or later, forecasting is run during the regular nightly deduplication processes.

Patient Groups Affected by this Release (v5.20)

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.

- PCV patients < 5 years of age with dose 2 > 7 months of age
- PCV/PPSV patients >= 65 years of age who have received PCV and PPSV separated by less than one year interval
- Polio patients < 18 years of age with 4 doses of polio prior to 08/07/2009
- Meningococcal patients 10-16 years of age with doses prior to age 10 yrs

New Features in v5.20

Note: Beginning with this release, ImmuCast Release Notes will include a Test Case Reference Number. Please access the details for testing **here**.

CDSi logic for the calculation of Past Due is added to PCV test cases beginning with this release. On-schedule scenarios will use the CDSi latest recommended age for Past Due. If the scenario uses the catch-up schedule, Past Due will be the same as the Recommended Date.

Bug Fixes Summary for ImmuCast v5.20

Key	Summary
	DTaP/Tdap
HDTN-1073 FCAST-596	This addresses the occasional occurrence of a null value for the minimum date recommended for the DTaP/Tdap series.
FCAST-605 HDTN-1092	This addresses ICVT Validation Report dose counts and evaluation of DTaP series for patients age 7 and older. This issue impacted Tennessee only.
	Influenza
HDWA-3262 FCAST-555	This updates the FluBlok warning to reflect the expanded age indication.
HDAK-2559 FCAST-608	This addresses the incorrect forecasting of additional influenza doses following administration of an annual dose.
HDSD-150 ONE-792	This resolves the scenario where a recommended date is calculated earlier due to 28 day month.
	Meningococcal and Meningococcal B
HDWV-1070 ONE-817 ONE-818	This changes the evaluation of 2 doses of Trumenba with 6 month interval to Series complete. If the interval between is less than 6 months, Dose #3 will be forecasted.
HDWA-3309 ONE-815	Per NIPINFO, MPSV4 can be counted if it is the first dose in the series but cannot be counted as the second dose. That dose must be Men-ACWY.
	This changes the warning indicator for MSPV as Dose 2 to Invalid with reason of "MSPV is not accepted as Dose 2 of this series."
ONE-813	This addresses the Meningococcal catch-up schedule rule. For patients aged 13-15 years, one dose is given now and a booster at age 16-18 years. The second dose must come on or after 16 years (- 4 days) of age to be considered valid.
HDWA-3282 HDAK-2558 HDSAF-166 HDAZ-913 ONE-811	This addresses the evaluation of MPSV4 or MenACWY doses given at 10 years of age as valid doses in the series.
HDWA-3087 ONE-812	This addresses routine healthy child recommendations for Meningococcal vaccination. Doses prior to age 10 or after age 56 years old will now return the

ONE-814	message "Dose is not applicable to healthy child-adult series." and will return a dose number of 0 in the SOAP message. They will not be evaluated for high risk. Dose 1 will remain forecasted at age 11 years of age.
	PCV and PPSV
HDWY-1407 FCAST-457	This addresses the forecasting interval between PCV13 Dose #2 and PCV13 Dose #3 in the catch-up schedule.
HDTN-1075 HDWA-3283 HDWY-1501 FCAST-556	This addresses catch-up scenarios in which the forecaster incorrectly evaluated a PCV series as complete after 2 doses.
HDMT-1707 FCAST-359	This addresses pneumococcal forecasting for patients over age 65 when PCV13 and PPSV are administered on the same day.
FCAST-573 FCAST-575	These tickets address the incorrect evaluation of PCV dose given at an interval shorter than the absolute minimum as valid.
HDSAF-153 HDSAF-152 HDSAF-141 HDWA-3235 FCAST-550	This addresses the evaluation of PCV13 series completed after 3 doses.
ONE-795	This corrects the incorrect evaluation of PCV doses given after age 2 years as invalid.
ONE-793	This addresses the recommendation for a required PCV13 dose for patients under the age of 5 with a previously completed PCV7 series when last dose is administered at 12 months – 4 days.
ONE-623	This addresses the evaluation and recommendation following an inadvertent administration of a 2 nd PCV-13 dose for an adult patient. Per NIPINFO, PPSV should be forecast 12 months from last dose of PCV-13
ONE-617	This addresses Recommended and Past due dates for PCV7.
ONE-798 ONE-794 ONE-618 ONE-616 ONE-615 ONE-614 ONE-613 ONE-612 FCAST-574	These address CDSi test cases for PCV.
ONE-607	This addresses the application of grace period to PCV Dose #2 when administered after 7 months of age

	Polio			
HDWA-3276 HDSAF-160 FCAST-558	This addresses the incorrect forecasting of a 5 th dose of polio for a patient who has received 4 valid doses before age 4 and prior to the updated ACIP recommendations were issued in 2009.			
FCAST-616 ONE-779 ONE-625 HDSD-64 HDSD-160 HDWA-3276	This addresses the evaluation of IPV series with doses administered after June 2009.			
HDWA-3238 ONE-805	This addresses the evaluation of OPV, unspecified given after 04/01/2016 as invalid, consistent with OPV bivalent and OPV trivalent given after 04/01/2016.			
	Zoster			
HDWY-1496 FCAST-557	This addresses the interval between doses of recombinant zoster vaccine (RZV).			
HDSD-155 ONE-804	This addresses the warning which calls for 2 doses of recombinant zoster vaccine (RZV) necessary to complete a zoster series containing only zoster vaccine live (ZVL). Once the series is completed with 2 RZV doses, the warning will be removed.			

Bug Fix Details for v5.20

The following lists the detailed information about each of the tickets addressed in v5.20

Note: Beginning with this release, ImmuCast Release Notes will include a Test Case Reference Number. Please access the details for testing here.

Key	Clients Affected	Description	Test Case Reference
		DTaP/Tdap	
HDTN-1073 FCAST-596		This addresses the occasional occurrence of a null value for the minimum date recommended for the DTaP/Tdap series. As a temporary resolution, the forecaster will replace the null value with a value specific to the scenario in which it occurs. If the recommended dose is Td and patient has received Tdap, the minimum date will be set to 5 years from the previous dose. This addresses the occasional occurrence of a null value for the minimum date recommended for the DTaP/Tdap series.	No test cases
FCAST-605 HDTN-1092		This addresses ICVT Validation Report dose counts and evaluation of DTaP series for patients age 7 and older. (This issue impacted only Tennessee.) This addresses ICVT Validation Report dose counts and evaluation of DTaP series for patients age 7 and older. This issue impacted Tennessee only.	CDSi Test Case Tab

Key	Clients Affected	Description	Test Case Reference
		Influenza	
HDWA-3262 FCAST-555		The warning for FluBlok has been updated to reflect the expanded indication for patients 18 years of age and older. The warning will now display: "FLU: Influenza recombinant administered at < 18 years"	FLU 2018-1 FLU 2018-2 FLU 2018-3 FLU 2018-4 FLU 2018-5 FLU 2018-6
HDAK-2559 FCAST-608		This addresses the incorrect forecasting of additional influenza doses following administration of an annual dose.	• FLU 2019-1
		Meningococcal and Meningococcal B	
HDWV-1070 ONE-817 ONE-818		Per ACIP, Trumenba is a 2-dose series administered at least 6 months apart. If dose 2 is administered earlier than 6 months, a 3rd dose is recommended at least 4 months after dose 2. This changes the evaluation of 2 doses of Trumenba with 6 month interval to Series complete. If the interval between is less than 6 months, Dose #3 will be forecasted.	• MenB 2019-1 through MenB 2019-14
HDWA-3309 ONE-815		Per NIPINFO, MPSV4 can be counted if it is the first dose in the series but cannot be counted as the second dose. That dose must be Men-ACWY. If administered at >= 16 years as Dose 1 it is accepted and completes the series. This changes the warning indicator for MSPV4 as Dose 2 to Invalid with reason of "MSPV4 is not accepted as Dose 2 of this series."	• MEN 2019-02

Key	Clients Affected	Description	Test Case Reference
ONE-813		This addresses the Meningococcal catch-up schedule rule. For patients aged 13-15 years, one dose is given now and a booster at age 16-18 years. The second dose must come on or after 16 years (- 4 days) of age to be considered valid.	CDSi Test Case Tab
HDWA-3282 HDAK-2558 HDSAF-166 HDAZ-913 ONE-811		This addresses the evaluation of MPSV4 or MenACWY doses given at 10 years of age as valid doses in the series.	CDSi Test Case Tab
HDWA-3087 ONE-812 ONE-814		This addresses routine healthy child recommendations for Meningococcal vaccination. Doses prior to age 10 or after age 56 years old will now return the message "Dose is not applicable to healthy child-adult series." and will return a dose number of 0 in the SOAP message. They will not be evaluated for high risk. Dose 1 will remain forecasted at age 11 years of age.	STC Test Case Tab • MEN 2019-01
		PCV and PPSV	
HDWY-1407 FCAST-457		 This addresses the forecasted interval between PCV Dose #2 and PCV Dose #3 which should be: 4 weeks if current age is younger than 12 months and previous dose given at < 7 months old 8 weeks (as final dose for healthy children) if previous dose given between 7-11 months (wait until at least 12 months old); 8 weeks (as final dose for healthy children) if current age is 12 months or older and at least 1 dose was given before age 12 months. 	CDSi Test Case Tab

Key	Clients Affected	Description	Test Case Reference
HDTN-1075 HDWA-3283 HDWY-1501 FCAST-556		This addresses scenarios in which the forecaster incorrectly evaluated a PCV series as complete after 2 doses. Only healthy children who received the previous dose of PCV13 at age 24 months or older are considered complete with two doses.	CDSi Test Case Tab
HDMT-1707 FCAST-359		This addresses pneumococcal forecasting for patients over age 65. Although PCV13 and PPSV23 are not recommended to be administered at the same visit, the CDC does not recommend repeating either vaccine. PCV13 and PPSV23 administered on the same date or with an interval less than one year now complete the series for patients over age 65 years.	 CDSi Test Case Tab 2015-0021 STC Test Case Tab PPSV 2018-01 PPSV 2018-02 PPSV 2019-01 through 2019-08
FCAST-573 FCAST-575		These tickets address the incorrect evaluation of PCV dose given at an interval shorter than the absolute minimum as valid. Dose #3 given between 4-8 weeks was counted as valid and patient moved to a 4 dose schedule. Dose #3 now will display as invalid when the interval is less than 8 weeks-4 days. When PCV Dose #1 is given at age 12 months or after, the minimum interval for Dose #2 is 8 weeks. When current patient age is 12 months or older and at least 1 dose was given before age 12 months, the minimum interval for Dose #3 is 8 weeks	CDSi Test Case Tab

Key	Clients Affected	Description	Test Case Reference
HDSAF-153 HDSAF-152 HDSAF-141 HDWA-3235 FCAST-550		This addresses the evaluation of PCV13 series completed after 3 doses. A fourth dose should be forecast only for children aged 12 through 59 months who received 3 valid doses before age 12 months.	CDSi Test Case Tab
ONE-795		This corrects the incorrect evaluation of PCV doses given after age 2 years as invalid.	STC Test Case Tab • PCV 2019-05
ONE-793		This addresses the recommendation for a required PCV13 dose for patients under the age of 5 with a previously completed PCV7 series.	STC Test Case Tab • PCV 2019-04
ONE-623		This addresses the recommendation of PPSV following an inadvertent administration of a 2 nd PCV-13 dose for an adult patient. Per NIPINFO, PPSV should be forecast 12 months from last dose of PCV-13.	STC Test Case Tab • PCV 2019-03
ONE-617		This addresses Recommended and Past due dates for PCV7	STC Test Case Tab • PCV 2019-02

Кеу	Clients Affected	Description	Test Case Reference
ONE-798 ONE-794 ONE-618 ONE-616 ONE-615 ONE-614 ONE-613 ONE-612 FCAST-574 FCAST-572		These tickets address CDSi test cases for PCV7 and PCV 13 and include both pediatric and adult scenarios.	CDSI Test Case Tab
ONE-607		This addresses the application of the grace period to PCV Dose #2 when administered after 7 months of age.	• PCV 2019-1
		Polio	

Key	Clients Affected	Description	Test Case Reference
HDWA-3276 HDSAF-160 HDSD-64 HDSD-160 HDWA-3276 FCAST-558 FCAST-616 ONE-779		This addresses the incorrect forecasting of a 5 th dose of polio for a patient who has received 4 valid doses before age 4 and prior to the updated ACIP recommendations were issued in 2009.	CDSi Test Case Tab
HDWA-3238 ONE-805		This addresses the evaluation of OPV, unspecified given after 04/01/2016 as invalid, consistent with OPV bivalent and OPV trivalent given after 04/01/2016.	STC Test Case Tab POL 2019-2 through POL 2019-22
	1	Zoster	
HDWY-1496 FCAST-557		This addresses the interval between doses of recombinant zoster vaccine (RZV).	STC Test Case Tab • ZOST 2019-2
HDSD-155 ONE-804		This addresses the warning calling for 2 doses of recombinant zoster vaccine (RZV) necessary to complete a zoster series which contains only doses of zoster vaccine live (ZVL). Once the series is completed with 2 RZV doses, the warning will be removed.	STC Test Case Tab • ZOST 2019-1

Known Issues for v5.20

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

DTaP/Tdap Forecasting

- Logic to support forecasting for 6 doses given before the age of 4 years has not yet been implemented. (CDSi Test Case 2013-0034)
- Logic to support inadvertent doses has not yet been implemented. (CDSi Test case 2013-0060)
- Logic to repeat Tdap at 11-12 years after administration at 7-10 years was published in April 27, 2018 MMWR has not yet been implemented. (Further changes to the recommendations are anticipated. This logic will not be implemented until recommendations are finalized and CDSi test cases have been published.)
- HDTN-905, HDAK 2469: Forecaster incorrectly marks DTaP Dose #5 as valid when the minimum interval from Dose #4 is > 4 months but < 6 months.
- Dose 1 administered at 4 months of age forecasts Dose 2 one month later instead of 4 weeks. Dose 2 is counted as valid with the 4 week-4 day absolute minimum interval.

Hepatitis B Forecasting

• HDWY-1541: Incorrect forecasting for Dose #3 of Hep B as part of Twinrix series

Hib Forecasting

- HDSAF-143, HDMT-1855, HDAZ-890: Forecaster incorrectly recommends Dose #3 Hib at 4 week interval after dose 2, rather than an 8 week interval.
- HDWV-1040: Forecaster correctly marks a Hib PRP-T dose as invalid but returns a "minimum interval not met" reason, rather than "minimum age not met".
- HDTN-1087: 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.

Polio Forecasting

 HDWA-3169: Forecaster incorrectly recommends Dose #5 after a series of 4 valid doses including one dose of IPV after the 4th birthday – This should read: Series is complete prior to ACIP change on 08/07/2009 but forecaster does not appropriately mark all following doses as Extra Doses.

Zoster: Returning brand recommendation

- Scenario: Forecaster returns Dose #2 ZVL recommendation for patient with previous dose of ZVL, rather than returning RZV recommendation. The 5.18.8 patch changed the name from Herpes Zoster to Zoster to match the CDC vaccine group. So it does not recommend ZVL.
- Task: Determine method for returning specific recommendation for Zoster. Typically, a vaccine family/group recommendation meets the need. A brand preference may be clinically meaningful in some cases. This is similar to PCV/PPSV23 recommendation.

• FCAST-542, HDWA-3232

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 5.20 Release Notes