

RPMS BI Patch 31 Clinical Impact and Takeaways

BI Patch 31 was released on November 3, 2025, and can be loaded locally in coordination with your Information Technology staff. BI Patch 31 enhances the accuracy, flexibility, and clinical relevance of immunization forecasting and reporting within RPMS. By expanding vaccine age ranges, improving report outputs, and customizing forecasting, these updates empower healthcare teams to strengthen vaccine delivery and protect more individuals from vaccine-preventable diseases. See page 7-8 to enable OPTIONAL forecasting in the BI Site Parameters High Risk Check.

Recombinant Zoster Vaccine (Shingrix)

NEW *What's New:* Forecasting is now OPTIONAL for immunocompromised individuals aged 19-49yrs when enabled in the BI Site Parameters High Risk Check, located in the Immunization Manager Menu Site Parameters (Option #18, Risk-Based Check #8). The system will forecast dose 1 based on an immunocompromise taxonomy risk check. Now, dose 2 will forecast if dose 1 was received (minimum interval of 4 wks). Dose 2 will also undergo a validation check, displaying as a "valid" dose if spaced properly. Prior to the patch, dose 2 was marked as an invalid dose.

Lightbulb *Clinical impact:* BI Patch 31 will help clinicians increase series completion rates in immunocompromised individuals who are disproportionately affected by shingles and have higher rates of severe outcomes.

HPV Vaccine (Gardasil-9)

N *What's New:* Forecasting at age 9-10yrs is now OPTIONAL for HPV series initiation. This option can be enabled through the BI Site Parameters High Risk Check, located in the Immunization Manager Menu Site Parameters (Option #18, Risk-Based Check #7).

Lightbulb *Clinical impact:* Forecasting at age 9-10yrs aligns with current immunization recommendations and is associated with on time series completion and higher series completion rates.

MenB Vaccine (Bexsero, Trumenba)

N *What's New:* MenB forecasting remains OPTIONAL and can be enabled through the BI Site Parameters High Risk Check, located in the Immunization Manager Menu Site Parameters (Option #18, Risk-Based Check #5). If forecasting is enabled, forecasting will expand from 16-18yrs to 16-23yrs.

Lightbulb *Clinical impact:* Expands the forecasting age range to reflect CDC recommendations for healthy young adults age 16-23yrs. CDC still recommends vaccination ideally at 16-18yrs in this group.

Adult Report Td/Tdap Rates

NEW *What's New:* A bug affecting the calculation of Td/Tdap rates in the Adult (ADL) report has been fixed. Updated data can be reviewed using the Immunization Manager Menu, Reports Menu, for Adults (ADL) – look for the Td/Tdap rates section at the top of the report.

Lightbulb *Clinical impact:* More accurate Td/Tdap rates, supporting identification of gaps and intervention opportunities.

Print Format for Immunization Reports

NEW *What's New:* For existing immunization reports, rates and denominator information can now be printed directly from RPMS into a spreadsheet-ready format using .csv files.

Lightbulb *Clinical impact:* Users can now transition data into spreadsheets more easily for tracking, trending, and analysis over time. This supports improved data analysis, performance monitoring, and quality improvement efforts.

Risk-Based Forecast Indicator

EW *What's New:* The abbreviation *RB* will display in BI RPMS under the "Immunizations Due" section of the patients profile in certain circumstances (this DOES NOT display in EHR). *RB* indicates "Risk-Based" and signals to the user that the BI Site Parameters High Risk Check was used to identify a vaccine indication.

Lightbulb *Clinical impact:* Users will have an improved understanding of the origin of vaccine forecaster recommendations, helping to ensure accurate identification of risk-based indications and immunization needs.

Feature Highlight: Recombinant Zoster (Shingrix) Forecaster Enhancements

Recombinant Zoster Vaccine Information	
Brand Name	Shingrix
Vaccine Type	Recombinant, adjuvanted vaccine
Routine Recommendation	2-dose series for EVERYONE 50yrs+
Risk-Based Recommendation	2-dose series: individuals 19-49yrs with immunocompromise (or imminent immunocompromise) due to known disease or drug therapy
Dosing Schedule	50yrs+: 0, 2-6 months 19-49yrs (immunocompromised): 0, 1 month
Dose Volume	0.65mL
Forecasting	<p><u>Routine Forecasting:</u></p> <ul style="list-style-type: none"> • Forecasts for dose 1 for EVERYONE 50yrs+ • Forecasts for dose 2 for EVERYONE 50yrs+ based on minimum interval of 8 weeks since dose 1 <p><u>Risk-Based Forecasting:</u></p> <ul style="list-style-type: none"> • OPTIONAL forecasting for dose 1 for individuals 19-49yrs based on risk-based forecaster using the immunocompromise taxonomy <p>NEW with BI Patch 31: Forecasts for dose 2 based on minimum interval of 4 weeks since dose 1 and completes a validation check for the administered dose.</p>

RPMS Display:

0 - None
1 - Pneumo for High Risk history
2 - Hep B for Diabetes Mellitus
3 - Hep A and Hep B for CLD/Hep C
4 - COVID Immunocompromised
5 - Men B for 16 to 23 yrs
6 - RSV for 60 to 74 yrs
7 - HPV for 9 to 10 yrs
8 - RecombZV for 19 to 49 yrs

Patient: DEMO,STEVEN	DOB: 21-May-1995 (30 yrs)
Chart#: 143964 at	Active Male M HBsAg: UNK
# Immunization History	Immunizations DUE on 08/26/2025
-----	-----
1 07/29/25 ZOS-Shgrx 2021	Tdap past due
	HEP B,HBs due
2 12/15/20 COV,Mod 2021	ZOS-Shgrx due *RB*

Clinical Considerations for Shingles (Shingrix) Vaccination and BI Patch 31 Impact:

Shingles affects about one in three people during their lifetime, and one in two individuals over the age of 80. The shingles vaccine is over 90% effective in adults aged 50 years and older, significantly reducing both the risk of developing shingles and the likelihood of post-herpetic neuralgia—a chronic or potentially permanent nerve pain condition.

For immunocompromised individuals between 19 and 49 years of age, vaccination against shingles is strongly recommended due to the higher risk and severity of illness associated with weakened immune systems from disease or medication. The forecaster has been expanded to include guidance for vaccination within this 19 to 49-year-old immunocompromised group. BI Patch 31 will support vaccinators in identifying individuals who need to complete the shingles vaccine series to ensure optimal protection and long-term efficacy against shingles.

Feature Highlight: HPV Vaccine (Gardasil-9) Forecaster Enhancements

HPV Vaccine	
Brand Name	Gardasil-9
Vaccine Type	Protein-Based, 9-valent
Routine Recommendation	HPV series for EVERYONE 9-26yrs
SCDM Recommendation	HPV series based on SCDM for individuals 27-45yrs
Dosing Schedule	2 dose: 0, 6 months: (healthy and initiated series at 9-14yrs) 3 dose: 0, 1, 6 months (healthy and initiated series at 15yrs+; OR immunocompromised 9-14yrs)
Dose Volume	0.5mL
Forecasting	<p><u>Routine Forecasting:</u></p> <ul style="list-style-type: none"> • Forecasts for dose 1 for EVERYONE beginning at age 11yrs • Forecasts for dose 2 or dose 3 in 11-26 years based on age at initiation and minimum intervals <ul style="list-style-type: none"> • Minimum intervals: dose 1 to 2 = 4 weeks; dose 2 to 3 = 12 weeks; dose 1 to 3 = 5 months <p>NEW with BI Patch 31: Optional forecasting for dose 1 beginning at age 9yrs. This option can be turned on in the Site Parameters section of the Immunization Manager Menu.</p> <p>COMING SOON in BI Patch 32 (anticipated Q1 2026): Forecasting for series initiation and completion for EVERYONE ages 27-45 years. This expanded age range will be OPTIONAL and will be configurable in the Site Parameters.</p>

RPMS Display:

0 - None
1 - Pneumo for High Risk history
2 - Hep B for Diabetes Mellitus
3 - Hep A and Hep B for CLD/Hep C
4 - COVID Immunocompromised
5 - Men B for 16 to 23 yrs
6 - RSV for 60 to 74 yrs
7 - HPV for 9 to 10 yrs
8 - RecombZV for 19 to 49 yrs

Patient: DEMO, JAMES STEPHEN J		DOB: 17-Feb-2016 (9 yrs)	
Chart#: 890022		Active Male M HBsAg: UNK	
#	Immunization History	Immunizations DUE on	
1	02/10/17 DTaP (PENTACEL) 2021	Tdap	past due
2	03/26/21 DTaP (PEDIACEL) 2021	POLIO,NOS	past due
		HEP B,NOS	past due
3	03/26/21 Tdap 2021	FLU,NOS	due
		HPV,NOS	due *RB*

Clinical Considerations for HPV Vaccination and BI Patch 31 Impact:

HPV vaccination has the potential to prevent over 90% of cancers caused by HPV. Most HPV infections are asymptomatic and clear within two years. However, some HPV infections are persistent and can lead to genital warts, precancerous lesions, or cancer. HPV-related cancers include cervical, vulvar, and vaginal cancer in females, penile cancer in males, and anal and oropharyngeal cancer in both females and males. Head and neck cancers are the leading cause of HPV-related cancers in men. Since HPV vaccination was first recommended nearly 20 years ago, infections with HPV types that cause most HPV cancers and genital warts have dropped 88% among teen girls and 81% among young adult women.

HPV transmission only requires skin-to-skin contact. Half of all new infections occur in people ages 15–24 years. The HPV vaccine is most effective when administered prior to a first exposure to HPV; therefore, it is ideally placed in the adolescent immunization schedule. Typically, the series is initiated at age 11-12 years, but can be started as early as 9 years old, according to the Centers for Disease Control and Prevention. The American Academy of Pediatrics and American Cancer Society promote the strategy of initiating the HPV series at age 9 to encourage series completion at age 11-12 years.^{1,2,3}

Feature Highlight: MenB Vaccine (Bexsero or Trumenba) Forecaster Enhancements

MenB Vaccine	
Brand Name	Bexsero or Trumenba (Brands are not interchangeable); or Penmenvy (MenABCWY) or Penbraya (MenABCWY) combination vaccines
Vaccine Type	Recombinant, Protein-Based
SCDM Recommendation	Healthy adolescents 16–23yrs (preferred initiation at age 16–18yrs)
Risk-Based	High-risk individuals: 10yrs and older (asplenia, complement component deficiency, complement inhibitor, microbiologists, outbreaks)
Dosing Schedule	2 dose: 0, 6 months (healthy and 16-23yrs) 3 dose: 0, 1-2, 6 months (high-risk and 10yrs or older) Boosters (high-risk only): 1 dose 1 year after primary series and every 2–3yrs if risk remains
Dose Volume	0.5mL
Forecasting	<p><u>Routine Forecasting:</u></p> <ul style="list-style-type: none"> MenB forecasting is OPTIONAL and may be enabled in the Site Parameters section of the Immunization Manager Menu <p>NEW with BI Patch 31: When forecasting is enabled:</p> <ul style="list-style-type: none"> Forecasts for dose 1 for EVERYONE age 16-23yrs Forecasts for dose 2 (or dose 3) for 16-23yrs based on minimum intervals and brand name <ul style="list-style-type: none"> Minimum intervals: dose 1 to 2 = 6 months; if dose 2 is given earlier than 6 months, administer dose 3 at least 4 months after dose 2) <p><u>Risk-Based Forecasting:</u></p> <ul style="list-style-type: none"> No risk-based forecasting for MenB is available Boosters do not forecast for risk-based indications

RPMS Display:

Patient: DEMO,DAVE	DOB: 23-Jun-2004 (21 yrs)
Chart#: 893395 at 2021 DEMO HOSPITA	Active Male M HBsAg: UNK
# Immunization History	Immunizations DUE on

1 01/04/05 DTaP (PEDIARIX) 2020	Tdap past due
	COV,NOS due
	FLU,NOS due
	Men-B,NOS due

Clinical Considerations for MenB Vaccination and BI Patch 31 Impact:

Serogroup B meningitis (MenB) is one of the most common causes of meningococcal disease in the U.S., causing meningitis and bacteremia. The disease can progress rapidly, becoming life-threatening within hours, even in previously healthy individuals. Despite appropriate medical treatment, meningitis is fatal in 10–15% of cases, and among survivors, 10–20% experience long-term disabilities such as hearing loss, brain damage, limb amputation, or other neurological complications. MenB spreads through close contact, including sharing drinks or utensils, kissing, or living in close quarters (e.g., college dorms, military barracks). While anyone can contract MenB, adolescents and young adults aged 16–23 years are at greater risk, particularly in communal living settings.

The CDC recommends MenB vaccination based on shared clinical decision-making for healthy teens and young adults ages 16–23, with a preferred age of 16–18. This means healthcare providers and families should discuss the individual’s risk factors and decide together whether vaccination is appropriate. BI Patch 31 will align MenB forecasting with the CDC’s Shared Clinical Decision Making recommendations for adolescents and young adults.

Feature Highlight: Adult Report Bug Discovery & Fix

Adult Report Td/Tdap Rates: A bug affecting the calculation of Td/Tdap rates in the Adult (ADL) report has been fixed. Updated data can be reviewed using the Immunization Manager Menu report for Adults (ADL) – look for the Td/Tdap rates section at the top of the report

RPMS Display:

* Adult Immunization Report * Report Date: 04/30/2025	* Adult Immunization Report * Report Date: 05/30/2025																		
Active Users (2+ visits, 3 yrs)	Active Users (2+ visits, 3 yrs)																		
Beneficiary Type: INDIAN/ALASKA NATIVE	Beneficiary Type: INDIAN/ALASKA NATIVE																		
Number Percent	Number Percent																		
Total Number of Patients 19 years and older.....: 118	Total Number of Patients 19 years and older.....: 120																		
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">TETANUS: # patients Tdap EVER.....</td> <td style="width: 10%; text-align: center;">1</td> <td style="width: 10%; text-align: center;">0.8</td> </tr> <tr> <td>TETANUS: # patients Tdap EVER AND.....</td> <td></td> <td></td> </tr> <tr> <td>[Td OR Tdap in past 10 years].....</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0.0</td> </tr> </table>	TETANUS: # patients Tdap EVER.....	1	0.8	TETANUS: # patients Tdap EVER AND.....			[Td OR Tdap in past 10 years].....	0	0.0	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">TETANUS: # patients Tdap EVER.....</td> <td style="width: 10%; text-align: center;">31</td> <td style="width: 10%; text-align: center;">25.8</td> </tr> <tr> <td>TETANUS: # patients Tdap EVER AND.....</td> <td></td> <td></td> </tr> <tr> <td>[Td OR Tdap in past 10 years].....</td> <td style="text-align: center;">20</td> <td style="text-align: center;">16.7</td> </tr> </table>	TETANUS: # patients Tdap EVER.....	31	25.8	TETANUS: # patients Tdap EVER AND.....			[Td OR Tdap in past 10 years].....	20	16.7
TETANUS: # patients Tdap EVER.....	1	0.8																	
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[Td OR Tdap in past 10 years].....	0	0.0																	
TETANUS: # patients Tdap EVER.....	31	25.8																	
TETANUS: # patients Tdap EVER AND.....																			
[Td OR Tdap in past 10 years].....	20	16.7																	
Total Number of Patients 19-59.....: 81	Total Number of Patients 19-59.....: 81																		

Feature Highlight: Immunization Report Data File Format Enhancements

Print Format for Immunization Reports: For existing immunization reports in the RPMS Immunization Package in the Main Menu, immunization rates and denominators can now be exported directly from RPMS into a .csv file, a spreadsheet-ready format. It reduces the need to manually manipulate the data.

RPMS Display:

Example of .csv file data displayed in a spreadsheet

Typical format of immunization reports

* Adolescent Immunization Report (11-17 yrs) *				
Report Date: 05/30/2025				
End Date: 05/30/2025				
Registered Patients (All)				
Total Patients: 1132				
Females: 532				
Males: 600				
	11-12yrs	13yrs	13-17yrs	
Age Group Denominators	78	185	1054	
1-HEPB #	56	157	870	
1-HEPB %	72	85	83	
2-HEPB #	34	146	835	
2-HEPB %	44	79	79	
3-HEPB #	6	120	779	
3-HEPB %	8	65	74	
1-MMR #	2	48	696	
1-MMR %	3	26	66	

* Adolescent Immunization Report (11-17 yrs) *				
Report Date: 05/30/2025				
End Date: 05/30/2025				
Registered Patients (All)				
Total Patients: 1132				
Age Group Denominators	11-12yrs	13yrs	13-17yrs	
	78	185	1054	
1-HEPB	56 72%	157 85%	870 83%	
2-HEPB	34 44%	146 79%	835 79%	
3-HEPB	6 8%	120 65%	779 74%	
1-MMR	2 3%	48 26%	696 66%	
2-MMR	0	6 3%	209 20%	

Edit Site Parameters for:

- 1) Default Case Manager.....:
- 2) Other Location.....: OTHER
- 3) Standard Imm Due Letter: PR OPD DUE
- 4) Official Imm Record Letter...: official form letter
- 5) Facility Report Header.....:
- 6) Host File Server Path.....: /usr/spool/uucppublic/
- 7) Minimum Days Last Letter.....: 1 day
- 8) Minimum vs Recommended Age...: Recommended Age
- 9) 4-Day Grace Period option.....: 4-Day Grace Period Used
- 10) Lot Number Options.....: Required, Default Low Supply Alert=50
- 11) Pneumo routine age to begin...: Begin Pneumo at 65 years
- 12) Forecasting (Imms Due).....: Enabled
- 13) Chart# with dashes.....: No Dashes (123456)
- 14) User as Default Provider.....: Yes
- 15) IP Address for ICE Forecaster: 127.0.0.1
- 16) GPRC Communities.....: 50 Communities selected for GPRC.



Don't see Actions 17-21?? Use the DOWN ARROW to scroll down to see additional site parameters.

Select Action: Quit//

- 17) Inpatient Visit Check.....: Enabled
- 18) High Risk Factor Check.....: High Risk Disabled
- 19) Import CPT-coded Visits.....: Disabled
- 20) Visit Selection Menu.....: Disabled (Link Visits automatically)
- 21) Flu Season Start & End Dates.: 09/01 to 04/01

Enable by selecting #18 and selecting the specific risk factor checks your site wants.

Select Action: Quit// 18

* ENABLE/DISABLE RISK FACTOR CHECKS *

When forecasting immunizations for a patient, this program is able to look at the patient's medical history of visits and attempt to determine if the patient has an increased risk for pneumococcal disease, hepatitis B due to Diabetes, or hepatitis A and B due to chronic liver disease (CLD) or hepatitis C. If the patient fits the High Risk criteria, the program will forecast the patient as due for those immunizations. COVID Immunocompromised option will forecast the patient as due for an additional dose of COVID vaccine.

This parameter allows you to select which High Risk forecasting is enabled on your system. The choices are as follows:

- 0 - None
- 1 - Pneumo for High Risk history
- 2 - Hep B for Diabetes Mellitus
- 3 - Hep A and Hep B for CLD/Hep C
- 4 - COVID Immunocompromised
- 5 - Men B for 16 to 23 yrs
- 6 - RSV for 60 to 74 yrs
- 7 - HPV for 9 to 10 yrs
- 8 - RecombZV for 19 to 49 yrs

Choose the Risk Factor Checks your site wants to enable. BI Patch 31 modified #5, #7 and #8. It is highly recommended to enable all EXCEPT #2 (Hep B for Diabetes Mellitus) since Hepatitis B vaccination is now routine for EVERYONE under the age of 60 years and the forecaster automatically forecasts this age-based recommendation.

Select one or more of the above, separated by commas: 0// 1,3,4,5,6,7,8