Instructions for the Oracle Health (Cerner)
Electronic Health Record (EHR) System

Configuring Outreach Campaigns for Patients at Increased Risk for Shingles

SHINGRIX (ZOSTER VACCINE RECOMBINANT, ADJUVANTED) | GSK

Indication

SHINGRIX is a vaccine indicated for prevention of herpes zoster (HZ) (shingles):

- in adults aged 50 years and older.
- in adults aged 18 years and older who are or will be at increased risk of HZ due to immunodeficiency or immunosuppression caused by known disease or therapy.

SHINGRIX is not indicated for prevention of primary varicella infection (chickenpox).

Important Safety Information

- SHINGRIX is contraindicated in anyone with a history of a severe allergic reaction (eg, anaphylaxis) to any component of the vaccine or after a previous dose of SHINGRIX
- Review immunization history for possible vaccine sensitivity and previous vaccination-related adverse reactions. Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of SHINGRIX

Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

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Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

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(ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

01. Overview

This EHR guide provides instructions to enable health systems to configure outreach campaigns with educational messages for patients at increased risk for shingles. This guide may accompany the "Population Health Insights Guide to Help Identify Patients for Shingles Vaccination and Evaluate Shingles Immunization Rates in Your Health System." While the Insights Guide utilizes Oracle Health's EHR Population Health Suite (HealtheIntent) to help identify and monitor shingles immunization rates and associated population health metrics across a health system, this campaign guide provides instructions to create targeted patient outreach to select patient populations, to help improve immunization rates.

In the Oracle Health EHR system, the campaign module allows health system customers to configure campaign templates (including recommended outreach messages) and to specify the communication details (eg, audience, method, campaign period, delivery times).

This guide provides specific technical instructions to complete both of the aforementioned activities for outreach specific to patients at increased risk for shingles.

Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

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02. Background and Limitations

This EHR instructions guide for shingles was created specifically to leverage the Oracle Health campaign solution and will not work for other conditions, treatments, or therapeutic areas, or for other EHR systems. The intent of this resource is to provide suggestions to leverage Oracle Health's campaign management tool to create shingles campaign(s) for identified patients at the health system level.

The processes outlined in this piece are variable and not all steps will apply to every customer. Any steps or settings that are not part of a customer's standard process should be excluded or modified accordingly. Any questions should be directed to the appropriate service provider. The practice is solely responsible for the implementing, testing, monitoring, and ongoing operation of any EHR tools.

This guide is designed for organizations using the most recent Oracle Health code set. Some configurations may be required by a clinical analyst.

This guide provides instructions on how to help identify patients who may fall within SHINGRIX's indications. These include patients who are ≥50 years of age and adults aged 18 years and older who, are or will be, at increased risk of HZ due to immunodeficiency or immunosuppression caused by known disease or therapy.

The following studies supported the approval of the indications described above.[1]

Clinical Trial Experience in Adults 50 Years and Older: The efficacy and safety of SHINGRIX in adults 50 years and older was assessed in two studies. Study 1 (NCT01165177) included adults ≥50 years of age and Study 2 (NCT01165229) included adults ≥70 years of age. These studies excluded, among others, subjects who were immunocompromised, had a history of previous HZ, were vaccinated against varicella or HZ, and patients whose survival was not expected to be at least 4 years or who had conditions that might interfere with study evaluation.

Clinical Trial Experience in Immunocompromised Adults Aged 18 Years and Older: The safety of SHINGRIX was evaluated in 6 placebo-controlled clinical studies that enrolled subjects aged 18 years and older from 5 different immunodeficient or immunosuppressed (referred to as immunocompromised) populations.

These populations included autologous hematopoietic stem cell transplant (auHSCT) recipients (NCT01610414 & NCT00920218), patients with hematologic malignancies who received the first dose of SHINGRIX during or within 6 months of completing immunosuppressive therapy (NCT01767467), renal transplant recipients (NCT02058589), patients with solid malignant tumors receiving chemotherapy (NCT01798056), and patients with HIV (NCT01165203).

The efficacy of SHINGRIX was evaluated in immunocompromised patients ≥18 years of age who received an auHSCT (NCT01610414) and was calculated post hoc in another randomized, placebo-controlled, observer-blind study in subjects with hematologic malignancies (NCT01767467).

Dosing information for SHINGRIX[1]:

SHINGRIX is administered as a 2-dose series according to the following schedules:

- A first dose at Month 0 followed by a second dose administered 2 to 6 months later
- For individuals who are or will be immunodeficient or immunosuppressed and who would benefit from a shorter vaccination schedule: A first dose at Month 0 followed by a second dose administered 1 to 2 months later

Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

03. Indication and Important Safety Information

Indication

SHINGRIX is a vaccine indicated for prevention of herpes zoster (HZ) (shingles):

- in adults aged 50 years and older.
- in adults aged 18 years and older who are or will be at increased risk of HZ due to immunodeficiency or immunosuppression caused by known disease or therapy.

SHINGRIX is not indicated for prevention of primary varicella infection (chickenpox).

Important Safety Information

- SHINGRIX is contraindicated in anyone with a history of a severe allergic reaction (eg, anaphylaxis) to any component of the vaccine or after a previous dose of SHINGRIX
- Review immunization history for possible vaccine sensitivity and previous vaccination-related adverse reactions. Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of SHINGRIX
- In postmarketing observational studies, an increased risk of Guillain-Barré syndrome has been observed during the 42 days following vaccination with SHINGRIX
- Syncope (fainting) can be associated with the administration of injectable vaccines, including SHINGRIX. Procedures should be in place to avoid falling injury and to restore cerebral perfusion following syncope
- Solicited local adverse reactions reported in individuals aged 50 years and older were pain (78%), redness (38%), and swelling (26%)
- Solicited general adverse reactions reported in individuals aged 50 years and older were myalgia (45%), fatigue (45%), headache (38%), shivering (27%), fever (21%), and gastrointestinal symptoms (17%)
- Solicited local adverse reactions reported in autologous hematopoietic stem cell transplant recipients (aged 18 to 49 and ≥50 years of age) were pain (88% and 83%), redness (30% and 35%), and swelling (21% and 18%)
- Solicited general adverse reactions reported in autologous hematopoietic stem cell transplant recipients (aged 18 to 49 and ≥50 years of age) were fatigue (64% and 54%), myalgia (58% and 52%), headache (44% and 30%), gastrointestinal symptoms (21% and 28%), shivering (31% and 25%), and fever (28% and 18%)
- The data are insufficient to establish if there is vaccine-associated risk with SHINGRIX in pregnant women
- It is not known whether SHINGRIX is excreted in human milk. Data are not available to assess the effects of SHINGRIX on the breastfed infant or on milk production/excretion
- Vaccination with SHINGRIX may not result in protection of all vaccine recipients

Please see full Prescribing Information, available at SHINGRIXHCP.com.

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign

To set up a campaign in Oracle Health:

1. Create a patient list with patients who meet the criteria and export the results to a CSV file.
2. Set up the Campaign details within the Campaigns tool.

Step 1: Creating the Patient List

Dynamic Worklist, a reporting tool generally available to end users, offers functionality to identify patients.

1. **Select Dynamic Worklist** from the menu. The Dynamic Worklist wizard will display.
2. **Select Create Worklist** from the List Actions drop-down menu.
3. The Create New Worklist wizard contains 3 tabs: Worklist Type, Criteria, and Summary

   a. **Worklist Type**

   - **Enter the desired report name in the Name Your Worklist field**, for example: "Shingles Campaign"
   - **Select the radio button** for Group/Provider or Location as desired. The Group/Provider and Location are based on the organizational structure
   - **Complete the Group's/Provider's Relationship Type** or the Location's Facility, Building, and Unit. Select all facilities from the health system
   - For the Relationship Type, **select all roles**
   - **Click Next**

   b. **Criteria**

   - **Click the Age criterion**. **Enter** the desired patient age
   - **Click the Health Maintenance criterion**. **Enter and select** the shingles immunization series
   - **Click Next**

04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

c. Summary

- **Review the selected criteria** and **click Finish** to run the Patient List. The column will display all the patient information, which can be filtered if desired
- **Enter the count of patients** in the worksheet
- To export the list of patients to Excel, **click the List Actions drop-down menu** and then **click Export**

NOTE: A CSV file with the patient's Medical Record Number (MRN) is needed to upload the patient cohort to the Campaigns tool.

Additional Campaigns can be created. For example, to set up a campaign focused on Shingles Awareness Week Prep, consider the Criteria in Step 3b on page 6 for the campaign listed in the first row of the table below:

Campaign Focus	Inclusion Rules
Shingles Awareness Week Prep (January)	• **Health Maintenance criterion**
Heart Month (February)	• **Health Maintenance criterion** • Example conditions for certain cardiovascular diseases - See Table 3 on pages 13-14 for example ICD-10 codes
National Kidney Month (March)	• **Health Maintenance criterion** • Diagnosis (Condition) for CKD - See Table 3 on pages 13-14 for example ICD-10 codes
Immunocompromised Messaging (April)	• **Health Maintenance criterion** • Diagnoses (Condition) or medication to help identify immunocompromised patients - Health systems should define relevant ICD-10 codes to meet their definition of immunocompromised. Example ICD-10 codes and medications to help identify immunocompromised patients can be found in tables 1 & 2 on pages 10-12

Table continues on next page →

Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

Campaign Focus	Inclusion Rules
Asthma Awareness Month (May)	• **Health Maintenance criterion** • Diagnosis (Condition) for asthma - See Table 3 on pages 13-14 for example ICD-10 codes
Shingles Messaging During Flu Vaccination Season (September)	• **Health Maintenance criterion**
National Diabetes Month (November)	• **Health Maintenance criterion** • Diagnosis (Condition) for diabetes mellitus - See Table 3 on pages 13-14 for example ICD-10 codes
COPD Awareness Month (November)	• **Health Maintenance criterion** • Diagnosis (Condition) for COPD - See Table 3 on pages 13-14 for example ICD-10 codes

ACIP=Advisory Committee on Immunization Practices; CKD=Chronic Kidney Disease; ICD-10=International Classification of Diseases 10th Revision, Clinical Modification.

Health system customers should rely on existing Diagnosis Related Groupers (DRGs) within their EHR systems to identify specific patient populations.

See pages 10-11 for a list of example diagnoses and therapeutic agents that may be associated with immunocompromised patients.

Health systems may use these example diagnoses to assist in potentially identifying the parameters for the search query.

NOTE: The conditions and therapeutic agents listed in tables 1 and 2 are not exhaustive and only serve as an example to help identify potentially immunocompromised patients. Health system stakeholders should review and amend as they see fit to identify and manage immunocompromised patients.

The degree of altered immunocompetence in a patient should be determined by a physician.[2] Please see the Background section of this document (Section 2) for an overview of the populations included in the clinical trials involving SHINGRIX.

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

Table 1. Conditions and ICD-10-CM Codes Used to Identify Enrollees With Immunosuppression in MarketScan Database Study, United States, July 2012–August 2017[3]*

Condition	ICD-10 codes
HIV/AIDS†	
HIV/AIDS disease	B20-B24
Hematologic malignancy	
Lymphatic and hematopoietic tissue malignancy	C81-C83; C88-C96
Other immune conditions‡	
Disorders of immune mechanism	D89
Neutropenia	D70
Functional disorders of neutrophils	D71
Genetic anomalies of leukocytes	D72.0
Decreased leukocyte count	D72.81
Leukocyte disease NEC	D72.89
Leukocyte disease NOS	D72.9
Myelofibrosis	D75.81
Blood diseases NEC	D47.4; D75.89; D75.9; D89.2
Blood diseases NOS	D75.9; D75.89
Immunologic findings NEC	R76; R83.4-R87.4; R89.4
Nonspecific immune findings NEC and NOS	R76; R83.4-R87.4; R89.4
Solid malignancy	
Organ/system malignant tumors	C00-C07; C11-C19; C22-C80; Z85
Neuroendocrine tumors	C7A; C7B; D3A
Neoplasms of uncertain behavior	D00-D49
Organ transplant§	
Complications of transplanted organ	T86
Organ transplant status	Z94; Z98.85

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

Table 1. Conditions and ICD-10-CM Codes Used to Identify Enrollees With Immunosuppression in MarketScan Database Study, United States, July 2012–August 2017[3]*

Condition	ICD-10 codes
Rheumatologic/inflammatory‖	
Sarcoidosis	D86
Amyloidosis NOS	E85
Familial Mediterranean fever	E85.0; M04
Amyloidosis NEC¶	E85.1; E85.3; E85.8
Multiple sclerosis	G35
Other CNS demyelination	G36; G37.1; G37.3; G37.8; G37.9
Acute infective polyneuritis	G61.0; G61.9
Acute myocarditis	I40
Polyarteritis nodosa and other	M30
Allergic alveolitis/pneumonitis NOS	T78.40; J67.9
Other alveolar pneumonopathy	J84.01; J84.02; J84.09
Enteritis and colitis	K50-K52
Lupus erythematosus	L93.0; L93.2; M32
Diffuse connective tissue disease	L94; M35.8; M35.9
Arthropathy with infection	M12.9; M01.X0; M02.10
Crystal arthropathies	M11
Rheumatoid arthritis/inflammatory polyarthropathy	M05-M14
Inflammatory spondylopathies	M46
Polymyalgia rheumatica	M31.5; M35.3

Table adapted from Patel M, Chen J, Kim S, et al. Analysis of MarketScan Data for Immunosuppressive Conditions and Hospitalizations for Acute Respiratory Illness, United States. *Emerging Infectious Diseases*. 2020;26(8):1720-1730.

*Data from a national MarketScan Commercial Claims and Medicare database study from August 1, 2012 through July 31, 2017 estimating the prevalence of immunosuppressive conditions. The study used an algorithm to identify immunosuppressive conditions based on 6 groups of diseases and 3 classes of medications.

†Excludes asymptomatic HIV code of ICD-10 (Z21).

‡Sickle cell disease, asplenia, and psoriatic arthritis were not included in the Greenberg algorithm but are considered to have immune deficiencies by Infectious Diseases Society of America guidelines. Adding these to the algorithm only increased the prevalence of immunosuppressive conditions by 0.1%.

§Bone marrow and peripheral stem cell transplant were considered under organ transplant and only considered immunosuppressed if enrollees were currently being given chemotherapeutic agents or immune modulators. Considering these enrollees under other immune conditions in which immunosuppressed does not require receipt of chemotherapeutic agents or immune modulators would increase the overall prevalence of immunosuppressed by 0.01%.

‖Psoriatic arthritis was not included in the Greenberg algorithm and could be an indication for immunosuppressive treatment. Adding this condition did not increase the prevalence of immunosuppressive conditions.

CNS, central nervous system; NEC, not elsewhere classified; NOS, not otherwise specified.

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

Table 2. Examples of Medications Used to Identify Enrollees With Immunosuppression in a MarketScan Database Study, United States[3]*

Chemotherapeutic
- Aldesleukin
- Alemtuzumab
- Arsenic trioxide
- Azacitidine
- Bendamustine hydrochloride
- Bevacizumab
- Bexarotene
- Bortezomib
- Brentuximab vedotin
- Busulfan
- Cabazitaxel
- Capecitabine
- Carboplatin
- Carfilzomib
- Carmustine
- Cetuximab
- Chlorambucil
- Cisplatin
- Cladribine
- Cyclophosphamide
- Dacarbazine
- Dactinomycin
- Dasatinib
- Decitabine
- Denileukin diftitox
- Docetaxel
- Etoposide
- Everolimus
- Floxuridine
- Fluorouracil
- Gefitinib
- Ifosfamide
- Ipilimumab
- Ixabepilone
- Lomustine
- Melphalan
- Mercaptopurine
- Mesna
- Methotrexate
- Mitomycin
- Mitotane
- Nelarabine
- Ofatumumab
- Oxaliplatin
- Paclitaxel
- Panitumumab
- Pegaspargase
- Pemetrexed
- Pentostatin
- Pertuzumab
- Pralatrexate
- Rituximab
- Romidepsin
- Temozolomide
- Thioguanine
- Thiotepa
- Trastuzumab
- Tretinoin
- Vorinostat

Immune-modulating
- Abatacept
- Adalimumab
- Alefacept
- Anakinra
- Auranofin
- Azathioprine
- Basiliximab
- Belatacept
- Belimumab
- Certolizumab pegol
- Cyclosporine
- Daclizumab
- Denosumab
- Eculizumab
- Etanercept
- Golimumab
- Infliximab
- Interferon alfacon-1
- Leflunomide
- Lenalidomide
- Mycophenolate mofetil
- Natalizumab
- Sirolimus
- Tacrolimus
- Thalidomide
- Tocilizumab
- Ustekinumab

Systemic corticosteroids†
- Dexamethasone
- Methylprednisolone
- Prednisolone
- Prednisone

Table adapted with changes from Patel M, Chen J, Kim S, et al. Analysis of MarketScan Data for Immunosuppressive Conditions and Hospitalizations for Acute Respiratory Illness, United States. *Emerging Infectious Diseases*. 2020;26(8):1720-1730.

*Data from a national MarketScan Commercial Claims and Medicare database study from August 1, 2012, through July 31, 2017 estimating the prevalence of immunosuppressive conditions. The study used an algorithm to identify immunosuppressive conditions based on 6 groups of diseases and 3 classes of medications.

†Corticosteroids >14 days.

NOTE: The degree to which immunosuppressive drugs cause clinically significant immunodeficiency generally is dose related and varies by drug. The degree of altered immunocompetence in a patient should be determined by a physician.[2]

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

Health system customers are encouraged to rely on existing Diagnosis Related Groupers (DRGs) within their EHR systems to identify specific patient populations.

The Wellness Registry will identify patients for SHINGRIX per ACIP recommendations. In addition, you may also want to educate certain subgroups regarding their risk of shingles associated with certain chronic conditions. The following diagnosis codes may help identify those patients in your search query.

Table 3. Examples of Comorbidities That Have Been Associated With an Increased Risk of HZ[4]

Disease	ICD-10 Code/Description
COPD	J44.0 - Chronic obstructive pulmonary disease with (acute) lower respiratory infection J44.1 - Chronic obstructive pulmonary disease with (acute) exacerbation J44.9 - Chronic obstructive pulmonary disease, unspecified
Heart failure*	I50 - Heart failure
Heart Disease*	I51.9 - Heart disease, unspecified
Hypertension*	I11 - Hypertensive heart disease I10 - Essential (primary) hypertension
Hyperlipidemia*	E78.0 - Pure hypercholesterolemia E78.1 - Pure hyperglyceridemia E78.2 - Mixed hyperlipidemia E78.3 - Hyperchylomicronemia E78.4 - Other hyperlipidemia E78.5 - Hyperlipidemia, unspecified
Stroke*	I63 - Cerebral infarction
Atrial fibrillation/flutter*	I48 - Atrial fibrillation and flutter

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

Table 3. Examples of Comorbidities That Have Been Associated With an Increased Risk of HZ[4]	
Disease	**ICD-10 Code/Description**
Chronic Renal Disease	N18 - Chronic kidney disease (CKD)
Asthma	J45 - Asthma
Diabetes	E08 - Diabetes mellitus due to an underlying condition E10 - Type 1 diabetes mellitus E11 - Type 2 diabetes mellitus

*In a meta-analysis cardiovascular conditions were associated with an increased risk of herpes zoster. Note, the cardiovascular conditions included in each individual study assessed in the meta-analysis varied and included heart disease, heart failure, hypertension, hyperlipidemia, stroke, atrial fibrillation/flutter, and other cardiovascular disease. These conditions when assessed individually may not be associated with an increased risk of herpes zoster. Clinical judgment should be used when assessing risk factors for herpes zoster.

04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

Step 2: Setting up the campaign

The Unified Consumer Communications Campaigns solution allows health systems to set up campaigns in the EHR (confirm the solution is set up by the health system and the user has been provisioned the rights to create campaigns).

1. **Navigate to Settings > Practice Settings > Campaigns** to access the Campaign solution.
2. **Click Create Campaign**.
3. **Select the CSV with MRNs option** in the Module field.
4. **Enter a unique description**, for example, “Shingles Campaign”.
5. **Select the blank box** to open the File Selector and **select the CSV file of patients that was created in Step 1 (“Creating the patient list”).**
6. **Click** Next.
7. **Set up the Campaign Message**. **Select each tab** and **enter the desired message**. Complete the Text, Call, and Email tabs. Sample content for each campaign can be found at the links below:
   - January: Prepare for Shingles Awareness Week in February/March
   - February: Heart Month
   - March: National Kidney Month
   - April: Immunocompromised Messaging
   - May: Asthma Awareness Month
   - September: Shingles Messaging During Flu Vaccination Season
   - November: National Diabetes Month; COPD Awareness Month

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04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

8. Complete each of the tabs for the preferred delivery outreach modalities:

For the Text tab:

NOTE: An example of a shingles template for the Prepare for Shingles Awareness Week in February/March Campaign is provided on **page 18**. Additional examples provided can be added for a Heart Month Campaign (**page 19**), National Kidney Month Campaign (**page 20**), Immunocompromised Messaging Campaign (**page 21**), Asthma Awareness Month Campaign (**page 22**), Shingles Messaging During Flu Vaccination Season (**page 23**), National Diabetes Month Campaign (**page 24**), and COPD Awareness Month Campaign (**page 25**).

For the Call tab:

Suggested text for a Shingles Awareness Week Prep Campaign can be found on **page 18**. Additional templates can be created for additional campaigns.

The health system may have various phone outreach options, ranging from an Interactive Voice Response (IVR) system to manually reaching out to patients. Please contact your EHR team for additional support if needed.

NOTES: The instructions on this page should be repeated for each desired campaign message.

Modify the content for each campaign message, as per below:

- Shingles prevention reminder for Heart Month
- Shingles prevention reminder for National Kidney Month
- Shingles prevention reminder for immunocompromised patients
- Shingles prevention reminder for Asthma Awareness Month
- Shingles messaging during flu vaccination season
- Shingles prevention reminder for National Diabetes Month
- Shingles prevention reminder for COPD Awareness Month

04. Technical Instructions for Creating a Patient List and Setting up the Campaign (continued)

For the Email tab:

NOTE: An example of a shingles template for the Prepare for Shingles Awareness Week in February/March Campaign is provided on **page 18**. Additional examples provided can be added for a Heart Month Campaign (**page 19**), National Kidney Month Campaign (**page 20**), Immunocompromised Messaging Campaign (**page 21**), Asthma Awareness Month Campaign (**page 22**), Shingles Messaging During Flu Vaccination Season (**page 23**), National Diabetes Month Campaign (**page 24**), and COPD Awareness Month Campaign (**page 25**).

9. **Select the security setting as desired** for the Text message and Email (Secure or Unsecure).
10. **Set the campaign timing as desired** (Start Now or Start Later).
11. **Set the time of the day** when to send the campaign messages as desired.
12. **Set the Send only on Business Days setting** (Yes or No).
13. **Set the Messages per hour setting as desired**.
14. **Click Create Campaign**.
15. **Select the Campaign** from the Pending List, **click the ellipsis** and **select Start Campaign**.

05. Example Campaign Outreach Copy

Prepare for Shingles Awareness Week in February/March Campaign

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

Shingles is caused by the same virus that causes chickenpox, the varicella zoster virus. Once a person has had chickenpox, the virus remains in the body and can reactivate later in life and cause shingles. The risk of developing shingles sharply increases after 50 years of age.

Our records indicate that you may be due for a shingles vaccination.

Shingles Awareness Week is in February. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. When you are 50 or older, the risk of shingles sharply increases. In addition to age, certain conditions like asthma, chronic kidney disease, COPD, cardiovascular diseases (including heart failure, heart disease, hypertension, hyperlipidemia, stroke, atrial fibrillation/flutter), or diabetes may also increase your risk for shingles.

Our records indicate that you may be due for the shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Thank you for your time today.

Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

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05. Example Campaign Outreach Copy (continued)

Heart Month Campaign

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

Shingles is caused by the same virus that causes chickenpox, the varicella zoster virus. Once a person has had chickenpox, the virus remains in the body and can reactivate later in life and cause shingles. The risk of developing shingles sharply increases after 50 years of age.

February is Heart Month.
Patients 50 years and older may have additional risk factors for shingles. Cardiovascular diseases have been associated with an increased risk of shingles.

Our records indicate that you may be due for a shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. When you are 50 or older, the risk of shingles sharply increases. In addition to age, certain cardiovascular conditions may increase your risk of developing shingles.

Our records indicate that you may be due for the shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Thank you for your time today.

Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

SHINGRIX (ZOSTER VACCINE RECOMBINANT, ADJUVANTED)

05. Example Campaign Outreach Copy (continued)

National Kidney Month Campaign

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

Shingles is caused by the same virus that causes chickenpox, the varicella zoster virus. Once a person has had chickenpox, the virus remains in the body and can reactivate later in life and cause shingles. The risk of developing shingles sharply increases after 50 years of age.

March is Kidney Disease Awareness Month.
Patients 50 years and older may have additional risk factors for shingles. Chronic kidney disease has been associated with an increased risk of developing shingles.

Our records indicate that you may be due for a shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. When you are 50 or older, the risk of shingles sharply increases. In addition to age, certain conditions like chronic kidney disease may also increase your risk of developing shingles.

Our records indicate that you may be due for the shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Thank you for your time today.

05. Example Campaign Outreach Copy (continued)

Immunocompromised Messaging

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

If you are immunocompromised due to a condition such as HIV or cancer, or you are taking a medication that suppresses your immune system, you may be at increased risk for shingles.

Our records indicate that you may be due for a shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. If you are immunocompromised due to a condition such as HIV or cancer, or you are taking a medication that suppresses your immune system, you may be at increased risk for shingles.

Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Thank you for your time today.

05. Example Campaign Outreach Copy (continued)

Asthma Awareness Month Campaign

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

Shingles is caused by the same virus that causes chickenpox, the varicella zoster virus. Once a person has had chickenpox, the virus remains in the body and can reactivate later in life and cause shingles. The risk of developing shingles sharply increases after 50 years of age.

May is Asthma Awareness Month.
Patients 50 years and older may have additional risk factors for shingles. Asthma has been associated with an increased risk of developing shingles.

Our records indicate that you may be due for a shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. When you are 50 or older, the risk of shingles sharply increases. In addition to age, certain chronic conditions such as asthma, may increase your risk of developing shingles.

Our records indicate that you may be due for the shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Thank you for your time today.

Shingles Messaging During Flu Vaccination Season

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

Shingles is caused by the same virus that causes chickenpox, the varicella zoster virus. Once a person has had chickenpox, the virus remains in the body and can reactivate later in life and cause shingles. The risk of developing shingles sharply increases after 50 years of age.

When you get your flu vaccine this year, talk to your doctor or pharmacist about your risk of shingles, too.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. When you are 50 or older, the risk of shingles sharply increases.

When you get your flu vaccine this year, talk to your doctor or pharmacist about your risk of shingles, too.

Thank you for your time today.

05. Example Campaign Outreach Copy (continued)

National Diabetes Month Campaign

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

Shingles is caused by the same virus that causes chickenpox, the varicella zoster virus. Once a person has had chickenpox, the virus remains in the body and can reactivate later in life and cause shingles. The risk of developing shingles sharply increases after 50 years of age.

November is Diabetes Awareness Month.
Patients 50 years and older may have additional risk factors for shingles. Diabetes has been associated with an increased risk of developing shingles.

Our records indicate that you may be due for a shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. When you are 50 or older, the risk of shingles sharply increases. In addition to age, certain chronic conditions, such as diabetes, may increase your risk of developing shingles.

Our records indicate that you may be due for the shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Thank you for your time today.

05. Example Campaign Outreach Copy (continued)

COPD Awareness Month Campaign

Dear [Patient],

Are you aware that you may be at increased risk of shingles?
Shingles is a blistering rash that can be extremely painful. The pain has been described as burning, stabbing, or electric shocks. It usually develops on one side of the face or body and typically lasts 7 to 10 days. The pain during a shingles episode can disrupt everyday activities such as work, family time, and sleep.

Shingles is caused by the same virus that causes chickenpox, the varicella zoster virus. Once a person has had chickenpox, the virus remains in the body and can reactivate later in life and cause shingles. The risk of developing shingles sharply increases after 50 years of age.

November is COPD Awareness Month.
Patients 50 years and older may have additional risk factors for shingles. COPD has been associated with an increased risk of developing shingles.

Our records indicate that you may be due for a shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Phone

Hello,

This is [name] calling you from [health system name]. Are you aware that you may be at increased risk for shingles?

Shingles is a painful blistering rash that develops on one side of the face or body usually lasting 7 to 10 days. The pain has been described as burning, stabbing, or shock-like. In some cases, shingles may cause pain that can linger for months or years after the rash resolves.

If you've had chickenpox, the virus that causes shingles is already inside you and can reactivate at any time. When you are 50 or older, the risk of shingles sharply increases. In addition to age, certain chronic conditions such as COPD, may increase your risk of developing shingles.

Our records indicate that you may be due for the shingles vaccination. Talk to your doctor or pharmacist about your risk of shingles and how to help protect yourself.

Thank you for your time today.

06. Disclaimers

- Conditions, ICD codes, and medications listed in this guide are only examples to help identify patients. Ultimately it is up to the HCP/health system to select the conditions, codes, and/or medications they feel put a patient at increased risk of HZ and to determine whether a patient is appropriate for SHINGRIX
- The conditions and therapeutic agents listed in Tables 1 and 2 are not exhaustive and only serve as an example to help identify potentially immunocompromised patients. Health system stakeholders should review and amend as they see fit to identify and manage immunocompromised patients. The degree of altered immunocompetence in a patient should be determined by a physician
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07. Notes

Please see Important Safety Information for SHINGRIX on page 6 and full Prescribing Information, also available at SHINGRIXHCP.com.

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